Lumleian Lectures
ON
THE TONGUE AS AN INDICATION OF DISEASE.

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LECTURE II.

CLASS 8.—*Encrusted Dry and Brown Tongue.*

MR. PRESIDENT AND GENTLEMEN,—The variety about to be described is distinct enough, though it has points of contact with the two preceding classes, as a later stage of which it presents itself. The essential characteristic is the covering of the tongue with a brown dry crust, which surmounts and conceals the papillæ. It occurs as a later stage of the furred tongue, the spaces between the elongated papillæ getting filled up, as it would seem almost necessarily and the accumulation carried up so as to level or overtop their summits. It occurs also as a later stage of the coated tongue, more particularly of that kind which has been described as plastered, the growth of the papillæ and of the epithelium in the intervals and the accumulation of parasites on the dry surface producing the result.

To the naked eye the characters of the encrusted brown and dry tongue are almost sufficiently described by these three words. It is irregularly covered with brown dry incrustation, variously broken and fissured. Sometimes the cracks are quite irregular; often the deeper are transverse, with longitudinal longer and shallower fissures, which together divide the crust into more or less rectangular scales. The surface, particularly in front, often displays, instead of incrustation, coarse elongated papillæ which are antecedent to it, while towards the back and central parts the coat covers and conceals these prominences. The colour is generally brownish and the upper surface rough and dry, while the under part is smooth, uncoated, and only clammy. The teeth are often encrusted with brown matter.

It may be asked why is the encrusted tongue brown? Firstly, because it is dry. Many animal substances dry brown, among others the white coat of the tongue. I have dried a thickly coated white tongue at the temperature of 100°, and also at that of an ordinary room. When dry it became brown. A brown, dry, encrusted tongue when soaked in water became nearly white, but not quite, and brown as before when re-dried. Thus dryness appears to be the chief producer of brownness, but staining by food and medicine no doubt helps. Many coloured matters—beef-tea, wine, &c.—go into the mouth of a sick man, and cannot but discolour the tongue if the natural wash by saliva is wanting. The crusts on the teeth are probably similarly produced. They are not due to the drying of saliva on the teeth, for saliva at the heat of the body dries white.

With the microscope the chief points are the elongations of the papillæ, and their being embedded and overlaid by a heterogeneous brown mass, which will be further noticed. The incrustation differs from what has been shown to form the coat or fur, though attached to it so as to be inseparable without fracture. Traced in section from within outwards, it presents first much epithelium, more or less horizontally arranged, flattened, but usually not old enough to have lost the power of taking carmine. Through this project long papillæ, chiefly consisting of horny, untinting epithelium, upon the exalted summits of which rests a confused mass which constitutes the crust. While the tops of the papillæ support this material, their intervals, are filled up by it. Thus there are two constituents of the covering of the encrusted tongue: first, a large growth or accumulation of epithelium, much of which is in the shape of elongated papillæ; and, secondly, a less definite structure, which lies upon this and in its interspaces. The superimposed substance is mixed and irregular; much of it can be described only as amorphous; in it can be distinguished epithelial cells disposed without regularity, fat-globules, occasionally other adventitious and accidental matters, and last, not least, a multifarious collection of organisms, chiefly vegetable. In two cases, in one during life, in the other after death, I found lying on the tongue large detached masses of dry brown crust, one of which was not less than a quarter of an inch thick. Sections of these prepared in different ways were examined; I show a diagram representing one of these sections made from a drawing which I owe to the skilful hand of Dr. Delépine. Both masses showed a profusion of vegetable organisms, chiefly micrococci and the *oidium albicans*. I am indebted to Dr. Delépine for a minute description of these organisms, which, however, I will not read. Besides these, there were many strands of horny or superficial epithelium, many epithelial cells of the deeper kinds, many fat-globules, and much indeterminate matter. The dry incrustation differs from the white moist coat chiefly in this: whereas the major bulk of the white coat is epithelial, a very large proportion of the dark dry crust is parasitic. In the deeper parts of the epithelial structure, more especially in the Malpighian layer, there is often much profusion of nucleation or cell growth, the corium is in many cases distinctly hyper-nucleated and often over-injected. More rarely leucocytes are extruded within the papillæ and elsewhere.

To sum up the evidence afforded by the morbid anatomy of the encrusted dry tongue, we see first the results of the absence of friction and irrigation, most conspicuously in the accumulation which forms the crust. It is probable, also, that the elongation of the papillæ may be partly attributed to this cause. But there are also signs of increased cell formation and nutrient activity, so that we witness here a double process, over-production conjoined in larger measure with deficient removal. It is obvious that the dryness which helps to define this tongue has played an important part in it, both by want of scour and also by induration.

Coming to clinical considerations, much that has been said about the furred tongue applies also here. It will be convenient to take together two classes which, though I have separated them for some of the purposes of the inquiry, are not to be distinguished save as the earlier and later stages of the same state. I shall for clinical purposes fuse together the tongue which is completely encrusted and that which is in the process of shedding its crust in the way to become denuded. So various are the conditions under which the encrusted tongue is seen that it is not easy to discern what the link of association may be, except the somewhat loose one of severe illness, and that of some standing. The instinctive sense of the physician carries him thus far. His looks are ominous, he talks of the "typhoid state," and he orders stimulants.

Analysing the details in the two tables before us (Nos. 8 and 9), comprising together thirty-four cases, pneumonia takes the first place in frequency with six cases; then come pyæmia with four and continued fever with three. Acute rheumatism with hyperpyrexia occurred in one instance, and erysipelas in one. In short, there is scarcely any protracted and depressing febrile disorder in which, if I may supplement the scanty records before us with unrecorded experience, this tongue is not apt to be developed. It is often characteristic of typhus by means of the black colour it then presents—possibly due to hæmorrhage into the coat (but of this I cannot speak from observation). The encrusted tongue is so commonly looked for in advanced typhoid that it is often spoken of as the "typhoid tongue," though by no means the only variety displayed in this disease. But the association with fever does not contain the whole story, nor is the febrile condition essential. This tongue may concur with its complete absence. The abstract shows that of the thirty-four cases in question fifteen displayed a temperature above 102°, eight a temperature under 99°, in three of which it was subnormal. The low temperature was manifested with abdominal cancer, advanced phthisis, albuminuria, syphilitic mania, diarrhœa, alcoholism, and prostration from an unknown cause. Thus pyrexia, though often present with the encrusted tongue, and no doubt by the evaporation which it entails helpful to its production, is by no means necessary to it. The average temperature is lower than with the plastered tongue. It is scarcely needful to inquire, after what has been said, whether this

tongue is to be generally attributed to openness of the mouth during sleep or coma. The dry encrusted or furred tongue—for the two have similar clinical relations—is an especial property of coma or insensibility. I have not recorded any case in which well-marked coma persisted for more than twenty-four hours without one or the other being developed. The records are scanty, but a larger experience supports the general rule that with coma or long unconsciousness the tongue becomes as described. Many reasons are obvious—dryness and disuse the chief. But why the dryness? It is manifest that coma, if it involve habitual openness of the mouth, must tend to dry the tongue; but if health is good in general respects, it does not appear that the mere passage of air over the tongue in respiration can produce anything like the degree of desiccation in question. I have noticed how little dryness has resulted in a person otherwise well whose nostrils have been surgically plugged, and we must take another point of view. Coma, however it acts, is connected with only a minority of cases in which the tongue becomes dry and encrusted. Putting aside all states of coma and unconsciousness, all in which the mouth has been habitually open from other causes and all states of pyrexia, there remain many conditions, and those most various, in which the tongue has presented itself. Advanced phthisis, intra-thoracic or abdominal cancer, idiopathic anæmia, and diarrhœa have been mentioned; all were attended with much depression or prostration, and, indeed, it appears that, whatever else be present, a condition of much illness or lowered vitality runs through all and supplies the common factor. It has been shown that a similar condition of prostration often attends the furred tongue. I should have preferred to have been more explicit, but it is not easy to narrow the statement within a more strict definition. To most of the conditions the term "sinking" would be applied as indicating what is present or threatened. There is not necessarily any loss of consciousness nor any obvious failure of the nervous system. Sense and senses may be alike unimpaired. There is, as a rule, failure of circulation, of muscular strength, and of nutrition. Perhaps the term "asthenia" best implies the state. Any disturbance may be superadded, but none other is generally essential. I say *generally*, for direct dehydration will cause the state of tongue in question. This is seen in the effects of dry diet, and perhaps less simply in the effects of diarrhœa. It is to be observed that exhaustion by suppuration, as will be seen, causes other changes in the tongue than this.

It has been shown that the essential local change is dryness, and that this, as a rule, is not due to direct dehydration or to increased evaporation from pyrexia or patency of the mouth. That it is due to deficient secretion of saliva is a necessary conclusion, warranted by the obvious deficiency of liquid in the mouth, by the difficulty or impossibility of spitting, and by the usually fruitless result of catheterisation of the parotid, notwithstanding that acetic acid may be applied to the tongue as a stimulant to the gland. I shall revert to this point, but am not wrong so far in assuming the dryness to be, as a rule, due to suppression of this secretion. Associating this with the asthenia which accompanies it, we cannot but regard the local as the result of the constitutional state, and probably may accept it as a sign that the prostration is telling upon the functions of at least some of the organs. The bowels, kidneys, and skin do not obviously participate in the failure; but how about the gastric and other digestive juices? Observations here are difficult or impossible, but it may be conjectured that the salivary failure does not stand alone, and accept the state of tongue before us as an index not only of asthenia, but of a failure of certain vital functions connected with nutrition.

8. Encrusted, dry, and brown.

Pericarditis, hydrothorax, tapping often	1	Obstructive jaundice	1
Pneumonia	2	Cancer of pancreas &c.	1
Phthisis	1	Acute rheumatism	1
Cancer of lung	1	Idiopathic anæmia	1
Block in rectum and hepatic ascites	1	Typhoid	1
Choleraic diarrhœa	1	Typhus	1
Granular kidney and uræmia	1	Erysipelas	1
Uræmic coma	1	Pyæmia	3
Diabetic coma	1	Rapid emaciation, cause uncertain	1
		Alcoholism	1

Total ... 22

Observations as to the foregoing cases.

Pyrexia (temp. 102° to 104°)	8
Hyperpyrexia	1
No observations as to temperature	1
Average temperature of 21 cases	100·3°
Much prostration	12
Prostration not severe	—
Chiefly on liquid diet	13
Strictly limited to liquid diet	4
Dry diet	0
Saliva abnormally deficient*	8

Died, 14; recovered, 7; relieved, 1.

* The extreme illness of many of these patients made it difficult to estimate the absence of saliva by attempts to spit or by catheterisation of the duct. The number therefore appears small. It is probable that saliva was wanting in nearly all, so far as the state of the mouth could be taken as an index.

CLASS 9.—*The Process by which the Coated, Furred, or Encrusted Tongue becomes Red, Smooth, and Dry.*

The cleaning of convalescence requires no further notice; the shelving off of the coat at the tip and edges has been described. In less favourable circumstances the process of making bare occurs in this wise. The incrustation is very dry and correspondingly brittle, and the epithelium beneath it, in connexion probably with the same want of moisture, does not grow properly. The coat or crust now wears off more or less at the tip and edges, in a gradual manner, and displays not the normal surface, but a red and dry one, usually covered with a delicate membrane, so thin as possibly to escape notice, but discernible to a careful eye. Under the microscope it is evident enough. After, or more or less together with, the exposure of the fore part of the tongue, the central part loses its covering along a broad stripe which reaches from this point not quite to the back. This may be an inch or rather more in width, and is the part of the tongue most exposed to the breath, and consequently the driest. The clearing is often effected by a very obvious cracking and breaking away of the crust, which may be so rapid that I have seen a much-encrusted tongue become nearly naked in a day. The exposed surface may look raw, but is seldom absolutely so, for it is skinned over with the dry translucent membrane which has been described. This stretches straight along the surface, like the arachnoid of the brain, not dipping between the papillæ, the outlines of which it obscures. The bare and polished stripe is often fringed with white fur or coating as a line down each side, outside which is the nearly normal lateral margin. After a time the whole upper surface becomes nearly equally red, dry, and bare, the surface being intersected with fine or deeper lines or cracks, some longitudinal, the deeper transverse. The coating is retained longest at the root. A resumption of moisture is a sign of constitutional improvement, and precedes a gradual reclothing—too seldom observed—which restores the tongue to its normal state.

I will now bring the microscope to bear upon the process which has been described. I pass over the gradual change of convalescence to consider the modes by which the morbidly dirty tongue becomes morbidly clean. Starting with the elongated papillæ of the furred tongue, these, together with all the superficial epithelium, are often swept off accurately down to the Malpighian layer, which retains its place, and still uniformly clothes the corium. In time, or almost simultaneously, this may become covered afresh with epithelium of the horny sort, not at first as in health, but in the shape of the thin membrane of which I have spoken. Supposing the denuding process to continue, the Malpighian layer itself is removed and the corium exposed, making a surface which is uneven microscopically, though to the naked eye smooth, and necessarily red and raw. This process is attended with vascular injection, hypernucleation, and often the extrusion of leucocytes. Much of the injection and hypernucleation may be the consequence of the loss of the protective epithelium, with exposure and irritation of parts which should be covered. But in some cases it is apparent that a general inflammatory infiltration of the superficial parts precedes the denudation, and helps to produce it by a destructive process. This is most marked with scarlatina, where the infiltration is often most abundant. This may be due to the especial effect of the disease, which the tongue appears to share with the skin and throat. I have now traced the flaying operation down to the true skin. All that is special to the tongue has gone, at least in places; but more often,

as I have said, the process stops on reaching the Malpighian layer, and here begins a process of repair to which I have alluded, but to which I must revert. The tongue is now red, level, and polished. To the hasty eye it looks like raw beef—a similitude often used; but the beef is wrapped in silver paper. A continuous layer of horny epithelium of extreme tenuity presents itself, and, resting on the more elevated remnants of what were papillæ, stretches from one to another without dipping into the hollows, like the roadway of a bridge. The hollows, however, are not empty, but contain epithelium of the deeper sort. The somewhat gradual process which I have described is sometimes replaced by one into which violence more obviously enters. This relates especially to the encrusted tongue. The felted mass of crust breaks through its deeper part, the fracture passing through the bases of the papillæ, leaving their broken stumps standing. These quickly become levelled down, and the Malpighian layer soon presents itself with the delicate membrane, as described. In this breaking away of the crust accident cannot be excluded, but more is probably due to the rising up of new epithelium from beneath, by which the brittle, and mostly effete, mass above is pushed from its stool. Probably something of this sort happens when scarlet fever patients and snakes shed their skin.

9. *Furred or encrusted, becoming denuded; generally dry.*

Tetanus	1	Cancer of pancreas &c. ...	1
Syphilitic mania	1	Peritonitis, fæcal extravasations	1
Valvular disease	1	Typhoid	1
Pneumonia	4	Pyæmia	1
Cirrhosis	1		
Dysentery, abscess of liver	1		
Total	13		

Observations relating to preceding cases.

Pyrexia (temp. 102° to 104°)	5
Hyperpyrexia (over 104°)	1
No observations as to temperature	3
Average temperature in 10 cases	100·8°
Much prostration	7
Prostration not severe	—
Chiefly on liquid diet	9
Strictly limited to liquid diet	2
No food by mouth (fed by rectum)	0
Dry diet	0
Saliva observed as deficient*	2 (?)

Died, 10; recovered, 1; relieved, 1; not relieved, 1.

* Mouth invariably dry, but special observations on saliva not generally made, or practicable.

CLASSES 10 and 11.—*Bare, Red, and Dry Tongue.*

In the description of the process of denudation I have anticipated much that applies to the bare tongue. The completely bare tongue, red, raw, and dry—for this state does not seem to be attained except with dryness,—is comparatively rare. The term *completely* bare or denuded relates to the completeness of the loss of the epithelium in certain places, not to its spread over the whole tongue. This change is more limited in extent than the more shallow divestures which have been described. I have already traced the process down to the Malpighian layer, which has become covered anew with a straight membrane instead of the normal serrated one. Should the repair be exceptionally wanting, this membrane is not formed, but the Malpighian layer is left to break away and lay bare the corium beneath. Occasionally it would seem that the destruction occurs after the formation of this membrane, which it involves, for the broken ends are often seen overhanging a tract of excoriation. The exposure is affected not quite abruptly; the neighbouring epithelial structures shelve off until the patch of complete exposure is reached. Here no epithelium of any kind remains; the corium is laid bare to the cavity of the mouth, and is even sometimes itself encroached upon. I have not seen this process to descend quite to, though sometimes it has approached, the muscular fibres. The exposed corium sometimes shows little change of structure, more often it is infiltrated with leucocytes, sometimes to such an extent that the surface appears to be entirely composed of them. There is also injection of the bloodvessels. The infiltration is probably generally due to irritation by the unaccustomed contact of the contents of the mouth, and is subsequent, not antecedent, to the loss of covering. Even in scarlatina, where the inflammatory exudation may possibly be a part of the eruption, the nucleation is greater in the exposed parts than elsewhere.

For clinical purposes I shall place together two classes that cannot be always distinguished except with the microscope, and give a common consideration to the red denuded tongue, whether absolutely bare or protected only by the thin membrane which has been described.

The qualities of redness, smoothness, and dryness are nearly related. If the tongue be uncovered with the opaque superficial epithelium it will necessarily display the vascularity of the deeper parts; and this is usually increased because the tongue is irritated by exposure. The denuded tongue is dry partly because the loss of epithelial protection allows of increased evaporation from its surface, but chiefly from want of saliva. Want of saliva may encrust the tongue; it may also make it bare: of this more anon. This variety of tongue is that on which aphthous growths are most apt to occur. It presents itself in diverse circumstances, generally of exhaustion. The most prominent fact is its occurrence as the result of exhaustive discharges, especially of pus, and it is linked with the constitutional state described as hectic. The table shows that of thirty cases seven were connected with an ostensible escape of pus, including one case of lumbar abscess, one of empyema, two of discharge of pus with the urine, one dysentery with open hepatic abscess, and two of advanced phthisis with much expectoration and diarrhœa. Besides these, in which loss of pus was obvious, there was one instance of profuse dysenteric flux in which an abscess had formed in the liver but not found exit; two cases of lardaceous disease with the customary discharges, and five of advanced diabetes, brought to fifteen, of thirty, the number of instances in which this state of tongue was associated with exhausting discharges. The frequency of diarrhœa deserves remark. It has not been shown so far that simple diarrhœa causes it, but diarrhœa was prominent with other morbid conditions, notably dysentery and phthisis. The most striking tongue of this kind which I ever saw (it was as red and almost as smooth as sealing-wax) was in the case already referred to of acute dysentery, with unopened hepatic abscess. I have to thank Sir Joseph Fayrer for giving me some of his Indian experience, with regard more especially to tropical diarrhœa. In advanced cases of this, the tongue, he says, is shrunken, red, polished, and smooth; the papillæ have disappeared, and the epithelium is stripped off in patches. The gums, lips, and buccal mucous membrane are often aphthous. The tongue is very tender; alcohol or salt causes great pain in passing over it. As significant signs of convalescence, Sir Joseph notices a softening of the tongue, a change of the red to pink, loss of tenderness, and the reappearance of the papillæ.

There remain cases in which the red, dry, smooth tongue has presented itself without any obvious association with discharge. Among them were five of pneumonia, all with much depression; one was double, and attended with maniacal delirium; one was complicated with delirium tremens; another was in a drunkard; two were attended with great prostation (not explained). There were two cases of typhoid, of which one was characterised by sleeplessness and nervous agitation; one of tubercular peritonitis, one of biliary colic, and one of a dangerous gorge of grapes,—all these conditions being attended with much depression. Advanced tubercular disease presents itself as a not infrequent associate of this tongue; there were five cases of this sort in the thirty. Pyrexia is not needful to the production of this tongue, though often present. A temperature not above normal was found with it in cases of lumbar abscess, pyelitis, lardacious disease, several of diabetes, and some under dry diet. As compared with the encrusted tongue, there is no great difference in the frequency of pyrexia; both may occur without it; the average temperature of the bare tongue is somewhat lower than that of the encrusted.

To sum up the circumstances of the red, smooth, dry tongue, they are usually more chronic than those of the encrusted. This must be so, since the one is often a later stage of the other. Exhaustion by discharge is frequent with the smooth tongue; or, if this be absent, there are generally especial circumstances of prostration or depression, which are often connected with the abdominal organs. This tongue implies failing nutrition. The clinical evidence accords with the indications of pathology in this respect. The saliva is, I believe, always deficient, though I think it is not usually so completely absent as with the encrusted tongue. It will presently appear that in certain circumstances want of saliva prevents the growth of epithelium;

though this failure of growth may also have its connexion with a more general impairment of the nutritive process. Increased moisture of the tongue is a sign of the best omen; this is usually followed by re-covering, and possibly by recovery.

The prognosis with this tongue is bad: of the thirty cases in which it was recorded, sixteen ended fatally. The mind commonly remains clear, though the patient may be weak unto death.

10 and 11. *Bare, smooth, dry, red (membrane or none evident).*

Pneumonia	5	Surfeit	1
Broncho-pneumonia (also after recovery)	1	Diabetes, advanced	5
Phthisis or general tuberculosis, or of peritoneum	4	Typhoid	2
Hepatic ascites & dry diet	2	Pyæmia	1
Attack of gall-stones	1	Lumbar abscess, discharging	1
Lardaceous disease, ascites, &c.	2	Pus in urine (abdominal tumour)	1
Dysentery and abscess of liver	2	Tubercular pyelitis, pus in urine	1
		Empyema, discharging	1
Total	30		

Observations relating to the above cases.

Pyrexia (temp. 102° to 104°)	11
Hyperpyrexia (temp. over 104°)	2
No observations as to temperature	1
Average temperature in 23 cases	99·6°
Much prostration	21
Prostration not severe	2
Chiefly on liquid diet	11
Strictly limited to liquid diet	6
Dry diet	2
Saliva abnormally deficient	15

Died, 16; recovered, 6; relieved, 7: not relieved, 1.

CLASS 12.—*Cyanosis or Venous Congestion of the Tongue.*

This tongue is characterised mainly by a superabundance of recent or deep epithelium, which occurs in circumstances indicative of excessive production, not deficient removal. It especially belongs to heart disease or cyanosis from some other cause. To the naked eye there is a bluish or purple colour, and a smooth, wet, slippery surface like that of an eel, upon which the papillæ are almost indistinguishable, as if fused together or in some other way deprived of their separating intervals. Upon this substratum may be overlaid more or less of one of the grades of coat which has been ascribed to the partial obscuring of the deeper characters. Microscopically, the most noticeable peculiarities are superabundance of the recent epithelium, vascular injection, and hypernucleation. The deep epithelium is amassed thickly over the surface, sometimes rising to the tops of the papillæ, but leaving these exposed, sometimes overlaying them completely so that the whole papillary structure is embedded. The Malpighian layer shares in the overgrowth. The horny epithelium is usually deficient, as also are superficial vegetations, so that the surface is often abnormally clean and smooth. The corium and deeper parts are enormously over-injected and over-nucleated, and the fibrous tissue of the corium is often coarse and hypertrophied. The appearances presented suggest the means by which they are produced. In the excess of deep epithelium and of nucleation we see evidence of increased growth, while the generally clean surface shows that wear is not wanting. The essential factor is a hypertrophic process connected with mechanical congestion. The thick covering of the tongue with epithelium of the deep character is not confined to heart disease or cyanosis. My classification was based on what can be surely recognised with the naked eye. Had microscopic examination been the criterion, a separate class must have been made characterised by excess of epithelium of this sort. But this peculiarity is not obvious. The horny or superficial epithelium when wet is white and conspicuous; the deep epithelium is neither. Its presence in excess may be inferred from the appearance of cyanosis, and guessed at from some degree of paleness and fulness. Such a tongue may be thickly covered with superficial epithelium, by which the deeper characters may be hidden. Taking as the standard great excess of deep epithelium as displayed after death by the microscope, I find that of nineteen cases four were connected with cyanosis (cardiac or pulmonary), six with chronic albuminuria, two with acute tuberculosis, two with pyæmia, and one each of the following—pneumonia, diphtheria, perityphlitis, lumbar abscess, and leucocythæmia. Thus we see this form of epithelial hypertrophy in circumstances of three kinds—venous congestion, albuminuria, and diseases attended with pyrexia. To take the last first, no details of temperature are needed when once the disorders have been named. The overgrowth was no doubt a direct result of the increase of body heat on principles which have been stated. No further reference need be made to the congestion of cyanosis. But I must halt for a moment upon the question of albuminuria. I have sections of eight tongues from cases of chronic renal disease, mostly the granular kidney; in six there was such accumulation as has been described; in two there was less, but enough to show the tendency. Why in these cases should the epithelium grow in such profusion? Not from pyrexia, for there usually was none; not from venous congestion, of which there was generally no sign. Was the hypertrophic process due to the increased arterial tension so constant in the circumstances? If this be so, we should find hypertrophy of epithelium elsewhere. The reason may admit of doubt; but I think none need apply to the observation that in chronic albuminuria certain parts of the lingual epithelium are remarkably increased.

I have now concluded the separate consideration of each variety of tongue. I shall proceed to make a few observations relating to some general conditions which belong to it or affect it, and while I do so I must ask the College to tolerate a certain amount of repetition which it will not be possible to avoid.

Having regard to the importance of *dryness* as necessary to some of the most significant alterations of the tongue and its value *per se* as a clinical indication, I shall take this quality into consideration, abstracted, as far as may be, from others. Before doing so I shall venture to delay the College with a few observations upon the saliva.

On the Saliva.

I am satisfied that of all the immediate causes which make the tongue dry, or tend to do so, arrest in the secretion of saliva is the most important. In advanced conditions of dryness, not only is saliva obviously absent from the tongue and mouth, but the patient cannot spit. When the dryness is less complete he will sometimes produce with difficulty a little spittle, which is often tenacious or bloodstained. Frequently in the absence of saliva such patients will, on the request to produce it, hawk up a little mucus from the throat, which is clearly a different thing. I have made many experiments upon the salivary ducts, or rather, I should say, upon those of the parotid, which lend themselves most readily to the purpose. A tube passed into one of these channels in health could generally be made to drip saliva somewhat abundantly by the application of acetic acid to the tongue, or the secretion could be seen working its way out by the side of the tube. When the tongue was dry it was usually impossible to obtain any by such means. With advanced and complete dryness I have never been able to get a drop; with lesser degrees often a little. These observations show the dryness to be, as a rule, due to deficient secretion of saliva, not to its drying on the tongue, as has been supposed by some. This failure of secretion appears to be of much significance. It is not possible thus to gauge any other of the secretions which are concerned in the digestive process; but it is, at least, probable that the gastric and others may be similarly affected. It is a matter of immemorial experience that the dry tongue, more particularly that which is also encrusted, is incompatible with the digestion of solid food; the physician orders liquids and stimulants. This ancient practice has been arrived at not by reasoning, but by a less unsafe though a longer road—experience. We may be sure that there is natural truth at its foundation, though we may not know what that truth is. Provisionally we may assume that a deficiency of saliva, if it depend on other than local causes, goes with a deficiency of other juices concerned in digestion. At the same time it would seem that other secretions—those, for example, of the bowel, the intestines, and the skin—do not take part in any failure of secretion which may be supposed to exist. Putting aside cases where an excess of some secretion, as with diarrhœa or diabetes, has been contributory to the dryness, there are many of daily experience where together with a dry tongue the urine is fairly abundant, the bowels free, and the secretion of the skin not

wanting or even excessive. If, therefore, it be presumed that the failure of the salivary secretion is associated with a similar failure elsewhere, it is clear that the arrest is limited, not common to all the glands of the body.

I may add a few words upon the action of saliva upon the coat of the tongue; we have seen that, as a general rule, as the tongue becomes more and more coated, especially with acute disease, it gets drier and drier. This association of want of saliva with increasing coat suggests the question whether the secretion has any solvent action on the coat, so that this thickens from the absence of normal solution. This must be answered in the negative. I have taken coated tongues and kept similar pieces of them, one in saliva and one in water, for periods ranging up to sixty-eight hours. Then, making sections of each in the usual way, I have satisfied myself that there was no greater loss of epithelium in saliva than in water, and the same result has been given when the experiment was conducted at a temperature of 100° as at the ordinary temperature of a room. Whatever effect, therefore, is to be attributed to want of saliva, it is not by loss of any solvent action.

Other causes have been shown to conspire to make the tongue coated, but it would seem that want of saliva by itself will do this. A boy was brought under the care of my colleague, Mr. Rouse, with, as was believed, a fracture of the base of the skull. He had left facial paralysis, and an injury apparently of the chorda tympani on this side. The tongue was normally protruded, but the left half, sharply defined by the median line, was dry, and presented a milky appearance. The suppression of saliva was probably the cause of the coat, though other effects of nerve injury could not in this case be absolutely excluded.[1] I will take a simpler case reported by Mr. St. Clair Buxton. A lady had mumps, after which her mouth became quite dry. The tongue, gums, cheeks, palate, and pharynx presented a "fearfully dried up state." The tongue was thickly coated with a tough brown fur, which was horn-like and so hard that it sounded under a blow like the cover of a book. After ineffectual treatment by other means, the salivary ducts were probed, the glands galvanised, and the secretion restored. In the course of the following day, Mr. Buxton tells me, in a letter for which I have to thank him, the fur became soft and spongy, though it had previously been as hard and dry as wood; in a week all had cleared off, and in a fortnight or three weeks the tongue was perfectly normal. The fur stripped off in patches, leaving a rather raw surface underneath, which gradually assumed a natural appearance. It has been shown how closely the conditions of furring and incrustation are associated with deficiency of saliva, and inferred that these are largely the physical results of the ensuing dryness; the normally wet surface is soft and liable to wear; deprive it of moisture, and it becomes horny and resistant of it; besides which, with no saliva solid food is unacceptable. So that while induration is created attrition is reduced; and in general terms, and up to a certain point, it holds good that the less saliva the more coat.

But there is another relation between the secretion and the covering, and that of an opposite kind. An interesting case of lasting suppression of saliva was published by Mr. Rowlands of Great Crosby,[2] and I have to thank him for further particulars by letter. Ten years before the date of the report, a lady of the age of sixty underwent sudden and complete suppression of the saliva, after a nervous shock. Since this the mouth and tongue have been perfectly dry. The tongue now presents the appearance of a piece of dry raw beef; it is perfectly clean, and intersected with superficial fissures; no papillæ are to be seen with the naked eye, though to be made out with a lens. Here is a typical red, dry, smooth tongue sequent, and probably consequent, upon simple deficiency of saliva. It is scarcely necessary to revert to the red smooth tongue of disease, of which deficiency of saliva has been shown to be a constant, if not a necessary, attendant. These experiences showing coating and denudation from the same cause are not so contrary as at first sight appears, for many smooth tongues were formerly rough. The difference is largely one of time: furring and incrustation are early results of want of saliva, denudation a late result. It has been shown that with the bare tongue of constitutional disease two agents are commonly present—want of saliva and failure of general nutrition; but that want of saliva by itself is able to cause bareness is shown by such cases as that reported by Mr. Rowlands. Of the *modus operandi* I was long in doubt. The epithelium is fed by the blood, not by the saliva. Why does it waste in the absence of the non-nutritive fluid? Conversation with my colleague, Mr. Bennett, has, I think, given the clue. The epithelium, though not nourished by the saliva, needs to be kept moist by it, otherwise it cannot assimilate what is provided by the blood. Be this as it may, a general law may be formulated: the tongue tends to become smooth whenever for a long time it is kept dry from deficiency of saliva, or possibly from other causes.

[1] For this observation I have to thank Mr. Peel Davies, then house surgeon. [2] THE LANCET, vol. i. 1888.

ON A CASE OF

ANOREXIA NERVOSA VEL HYSTERICA.

BY STEPHEN MACKENZIE, M.D., F.R.C.P.,
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ALL will agree with the editorial remarks of March 24th, in gratification of the evidences of the renewed activity of Sir William Gull, and in admiration of the concisely-worded report of the case recently narrated by him. In a paper "On the Difficulties in Diagnosis of Gastric Ulcer," read at the Medical Society in 1885, a brief abstract of which appeared in THE LANCET (vol. ii. 1885, p. 1048), I alluded to some striking and fatal cases of apepsia and anorexia nervosa. It seems opportune in connexion with Sir William Gull's case to record the following, which is a very characteristic example of nervous anorexia. It is not necessary to reopen the question of whether such cases should be called hysterical on the present occasion, but it is desirable to extend a knowledge of cases of the kind, first and most graphically described by Sir William Gull at the Clinical Society, because I am convinced such cases sometimes pass unrecognised, and that lives are thereby lost.

A medical friend of large experience, and for whose knowledge and skill I have a great respect, asked me at the end of 1882 to see a patient in consultation with him. He met me outside the patient's house, and told me that it was a case in which he had much difficulty in forming an opinion. The patient had lost flesh and strength to a very great degree, and he had been led to fear there must be tuberculosis, though he could find no physical signs of the disease. We went into the house and saw our patient, a young lady, aged nineteen, a governess, greatly emaciated and rather anæmic. She did not complain particularly of anything except weakness. Careful examination failed to reveal any signs of disease in the chest, abdomen, and fundi. I elicited that originally, on account of pain, she had been taking insufficient food until she had really starved herself into her present condition. I regarded the case as one of "anorexia nervosa," and, though the patient was not of the class usually treated in hospital, strongly advised her mother to let her come into the London Hospital under my care. They took some little time to agree to this, but the patient was admitted into the hospital on Jan. 3rd, 1883, and I am able to amplify the history of the case from the notes taken by Mr. S. F. Smith, my clinical clerk. Her family history was not important. She was born in the West Indies, and came to England when one year old. She had inflammation of the bowels when nine, inflammation of the lungs when ten, and gastric fever when fifteen. She had had several minor ailments, and was always subject to colds. She stated that about six years before she had had a cough and spat blood. About two years before admission she began to be troubled with indigestion; she had pain after eating, with feelings of nausea and heartburn, faintings, and flushing of the face. Her appetite left her in the previous March, and she had gradually eaten less and less. She noticed that she began to be more fatigued than usual when walking, and she also suffered much from headache. For the last three or four months she had remained at home and in-doors. A year before admission she had a severe fright, caused by burglars. The patient was of light complexion and hair; her expression was sad (somewhat resembling a diabetic one, the clerk notes); her intelligence was good. She was much

wasted, weighing 6 st. 2 lb., and rather anæmic. The tongue was clean, the teeth very defective. She had entire loss of appetite, loathing meat, vegetables, puddings, &c., and only eating a little bread-and-butter. Though subject to nausea, she had had no vomiting or hæmatemesis. Her abdomen was retracted, and the bowels constipated, never acting more than once in seven or ten days. There were no signs of disease in the heart, lungs, liver, or kidneys, and the fundi were normal. The throat was a little congested. She menstruated first at fifteen; the catamenia had always been irregular and scanty, and had been absent since August. She had always suffered from leucorrhœa. She complained of pain in the back, extending from the neck to the middle, and also of pain in the head and knees. She stated that food, even in small quantity, caused her a feeling of fulness and pain in the stomach. Her temperature was subnormal during the whole course of her illness in the hospital, with the exception of the time following admission, when she had an attack of follicular tonsillitis. At this time the pulse was increased in frequency; but, I believe, though my notes are defective on this point, during the rest of the time there was no acceleration. She was ordered milk and beef-tea, eggs, pudding, and brandy mixture at regular intervals, with instructions that if the food was not taken each time it was to be administered by the stomach-pump or enema. A good deal of pressure had to be exercised at first to get her to take the food, but this was accomplished, and fish and flesh were soon added to the dietary. Except for an attack of follicular tonsillitis, her progress on the whole was uninterrupted. She steadily gained flesh, colour, and strength. She menstruated for the first time for seven months on Feb. 23rd. She was allowed up for a short time, first on Feb. 25th, and went out into the garden on March 30th. The medicinal treatment was unimportant; stomachics and aperients were given, and for a time cod-liver oil, which, however, disagreed. As she gained strength she was encouraged to assist in waiting on the other patients in the ward, and she found this occupation so congenial that when she left the hospital she gave up her former profession and regularly adopted that of nursing. She left the hospital in May practically well, and I have seen her robust and happy within the last few weeks.

THE EFFECTS OF MODERATE DRINKING ON THE HUMAN CONSTITUTION;

ITS INFLUENCE ON LIVER, KIDNEY, HEART, AND BRAIN DISEASES.

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No. V.

Effects of moderate drinking upon the brain and intellectual faculties.

FROM having, in the last chapter, discussed the question of apoplexy, and some of the slighter forms of the cerebral disturbances traceable to the intermediary influence of frequently repeated indulgences in small quantities of alcoholic stimulants upon the heart's action, and the production of atheromatous degeneration in the arterial coats, as the consideration of the effects of alcohol on the brain, when taken in excess, lies entirely outside of the scope and purport of this essay, I at once proceed to call attention to the as yet but imperfectly known subject of the influence of small quantities of alcohol on brain diseases. And it being my desire to make the effects of moderate drinking as strikingly apparent as is possible, as there are no statistics of the effects of it forthcoming, I fall back upon the data furnished in the Registrar-General's reports regarding the comparative ratio of mortality from diseases of the nervous system occurring amongst men between the ages of twenty-five and sixty-five in different industries. For they tell so startling a tale of the baneful effects of taking small quantities of alcoholic stimulants frequently during the day, that no one accustomed to analyse results deducible from collateral evidence can fail to appreciate their intrinsic value in the elucidation of the point in hand. The Registrar-General's report[1] tells us that the relative mortality is as follows:—

Men exposed to the temptations of nipping.	Diseases of the nervous system.
Commercial travellers	139
Brewers	144
Innkeepers, publicans, wine, spirit, and beer dealers	200

Men not exposed to the temptations of nipping.	Diseases of the nervous system.
Gardeners and nurserymen	63
Farmers and graziers	81
Printers	90
Drapers and warehousemen	109

The above figures speak to the reflecting mind in no ambiguous language, so that I need make no comment upon them save to call special attention to the fact of diseases of the nervous system being so much more common among drapers and warehousemen than among the equally in-door occupation of printers. The only tentative explanation which I dare venture to adduce from this fact being that as it is worry, little fidgeting mental worries; that conduce more than mental work (not excessive) to shatter the nerves, the high percentage of diseases of the nervous system met with among drapers and warehousemen is possibly due to their being more liable to be mentally harassed in the course of their daily avocations than printers, who are as a rule not subjected to anything like a similar class of petty annoyances during their work, no matter how arduous it may be. That, at least, is the explanation of the great disproportion between these two trades of nerve affections that I incline to accept until a better is forthcoming.

That after the liver and the heart the brain should be the next organ of the body which suffers most from the injurious effects of alcohol when taken in small quantities at a time is no more than what might be expected. Indeed, I think it is even less, seeing that alcohol acts injuriously upon nerve tissue in three distinctly different ways:—Firstly, through its chemical action upon the blood; secondly, by disordering the liver's functions and causing the bile to accumulate in the circulation, and thereby poison the brain and nerves; and thirdly, by its accelerating the heart's action, and thus sending an increased supply of blood to the brain. Every increase in an organ's blood supply being associated with a corresponding increase in the functional activity of the organ.

The increase of the cerebral circulation consequent upon the increase in the heart's action from the imbibition of small quantities of alcohol acts prejudicially, however, upon the brain in yet another way—namely, by its causing an engorgement and dilatation of the cerebral arteries. For seeing that Nicol and Mossop found that so small a quantity as two teaspoonfuls of absolute alcohol caused marked congestion of the retinal bloodvessels—which derive their blood supply from the same source as the cerebral vessels,—it is natural to infer that even the small quantity of two teaspoonfuls of alcohol will induce the same amount of congestion in the branches of the bloodvessels within the cranium as it does in those immediately outside of it. And if so, seeing that the organ is confined within a limited space and surrounded on all sides by unexpansible ridged walls, by their engorgement and dilatation they must of necessity press injuriously upon the brain substance. The pressure thus exerted on the nerve cells and fibres will not only prevent their performing their functions properly, but at the same time interfere with their nourishment, and consequently lead to a degeneration of their constituents. The deleterious effects of congestion of the intercranial bloodvessels are rendered apparent to us in yet another way—namely, by the feelings of fulness or tightness of the head experienced by many persons after partaking of alcoholic stimulants. Moreover, it appears to me that the facts just alluded to afford a reasonable explanation of why it so often happens that persons who indulge in small quantities of spirits while engaged in arduous mental labour frequently suffer from a sudden mental break-down, notwithstanding that the immediate effect of the stimulants had appeared to be beneficial to them by increasing their brain power. My explanation of the cause of the mental collapse is that the brain, like every other organ of the body, while in a state of functional activity, draws to it a super-supply of blood, and

[1] Supplement to the forty-fifth Annual Report, 1885.

consequently, when alcohol is taken, it adds to the already existing engorgement of the cerebral vessels arising directly from the brain's activity, by accelerating the heart's action, and thereby augmenting its deleterious effects by still further increasing the pressure exerted on the nerve cells and fibres by the already dilated and engorged vessels.

We shall now for a moment glance at the injurious effects of small quantities of alcohol exerted on the brain through the intermedium of the hepatic derangements stimulants induce.

The very large number of nerve affections, more especially in the form of intellectual disturbances, which come under the notice of liver specialists, are in a great measure attributable to the disorder of the biliary functions brought about by the habitual indulgence in small quantities of alcohol between meal-times. For, as is well known, scarcely a more formidable cerebral poison than bile exists. So potent, indeed, is the effect of bile circulating in the blood upon the intellectual faculties, that the special name of "bilæmia" has been invented for it. And who amongst us does not know, probably even from personal experience, the mental disturbance a mere temporary attack of biliousness produces? Memory is impaired, vision defective, mental labour irksome, the temper irritable, and the spirits depressed. In cases, again, where there is a sufficient amount of bile in the blood to produce jaundice, life sometimes becomes an actual burden. The very word "melancholy" is simply a compound of the two Greek words "black" and "bile," and one of the most distressing forms of insanity which is in general induced by it has been not inaptly christened "melancholia." Moreover, acute delirium and even profound coma are no unusual concomitants of bile poisoning.

Sometimes one learns from a patient a great deal which he may turn to account in the treatment of others, and one of the things a patient taught me was the marvellously depressing after-effects a single glass of spirits will occasionally produce in a bilious patient. A leading member of our own profession, who is a martyr to biliousness, made a number of experiments upon himself regarding the depressing after-effects of alcoholic stimulants, and he tells me that he has repeatedly found that a single glass of gin, whisky, or brandy, taken diluted with water, either at dinner time, or in the evening, when he is bilious, and feels exhausted after his day's work, will be followed in from five to fifteen hours with such a morbid depression of spirits that he scarcely knows what to do with himself: yet the primary effect of the stimulant is, he says, not only refreshing but exhilarating. This, although an exceptional case in so far as its severity is concerned, is but the type of many others that have come under my notice; for some have said that a single tablespoonful of brandy, whisky, or gin will induce depressing after-effects when their livers are out of order.

The only way in which I can account for this depressing after-effect of small quantities of alcohol, when taken by bilious persons, is by imagining that the small amount has the power to exert a more than usual deleterious influence on the cerebral tissues in consequence of their having been already materially weakened by the direct poisonous effects exerted on the nerve tissues by the bile in the circulation. I am led to this opinion from noticing how much less the depressing after-effects of spirits become so soon as the liver's functions are put to rights. The brain and liver disorders induced by alcohol thus appear to be as closely correllated as those of liver and kidney. The mere fact of a splitting headache following upon a debauch in the case of a strong healthy man, and a frontal or an occipital pain succeeding the drinking of a single glass of sherry in a nervously weak one, may be regarded, I think, as proof positive of the detrimental effects of alcohol on the nerve tissues, as well as lead us to suppose that it is most probably due to the compression of the nerve cells and fibres, which, as I have above tried to explain, may probably arise from the alcohol accelerating the heart's action and thereby increasing the circulation in the intercranial vessels.

This statement necessitates the making of another—namely, that atheromatous degeneration of both the cardiac and cerebral bloodvessels are particularly common among men of great muscular and mental activity, who are in general spoken of as "good lives." It may perhaps be on account of my special line of practice that this fact so frequently comes under my observation. Still, I think all who have much to do with the higher class of our city men, who as a rule not only live well but strain their brains in the counting-room, while they at the same time keep up their muscular development by rural sports, must have noticed that often a sudden, and at first sight unaccountable, breakdown takes place in them between fifty-five and sixty-five years of age. Most of them will tell you that they never before had a day's illness, and, although the very picture of health, they nevertheless complain of shortness of breath on exertion, giddiness, and diminished mental power, coupled with digestive and urinary derangements. In fact, it seems as if, all of a sudden, the liver, kidneys, heart, and brain had all at once begun, as it were, to strike work. I have at this moment two of this class in my mind, both of whom died suddenly: one of cerebral apoplexy from a bloodvessel in his brain giving way, the other from cardiac syncope; and both, I believe, threw their lives away by fancying the doctor's restrictions were uncalled for, and continuing to live as they did when in perfect health instead of giving up business and treating themselves as invalids as soon as they began to experience giddiness and shortness of breath.

I have now to call attention to what appears to be a reverse kind of preliminary alcoholic effect on the nervous system—namely, that which is observed in the incipient stage of intoxication, and is almost invariably spoken of as a pleasant instead of a disagreeable sensation. Although I imagine that when a small quantity of an alcoholic stimulant is taken the pleasurable feelings experienced may be probably entirely due to its increasing the cerebral circulation, I nevertheless think that when the amount taken is sufficient as to be ultimately able to lead to complete unconsciousness, the preliminary stage of the intoxication, which has been described by some as one of sweet *sans souci*, is simply the offspring of a blunting of nerve sensibility—in fact, merely a partial or incipient stage of cerebro-spinal paralysis. Precisely in the same way as feelings of a pleasing calm are oftentimes felt to precede the total unconsciousness of refreshing sleep, and soothing sensations of agreeable beatitude have been described as their feelings by persons who after a lingering illness have quietly and peacefully slipped away into eternity. In all of these cases the pleasurable sensations experienced are merely, I believe, due to the gradually increasing negation of nerve sensibility.

Lastly, as regards the deleterious influence small quantities of alcoholic stimulants exert upon the brain tissues through the power they possess of so acting on the nerve pabulum in the blood as to prevent its taking up oxygen and exhaling carbonic acid, and thereby becoming fitted for the purposes of brain nutrition. Alcohol does this exactly in the same way, though to a somewhat lesser extent than opium. This is well shown by the results obtained from a series of experiments I performed on the subject some years ago, a full account of which was laid before the Royal Society, and published in its Transactions in 1864, under the title of "The Action of Physical and Chemical Agents upon the Blood, with special reference to the Respiratory Process."

The relative effects of alcohol and opium were found to be as follows:—

In 100 parts of air.	Oxygen.	Carb. acid.	Nitrogen.	Vol. at 0° C. and 1 metre pressure.
Composition of employed air	20·9	0·002	79·038	20·96
With pure ox-blood	10·58	3·330	86·09	14·91
" " " + 5 per cent. of alcohol... ...	16·59	2·380	81·03	18·97
With pure calf's-blood	6·64	3·47	89·89	10·11
" " " + ·005 grms. of morphia ...	17·17	1·00	81·83	18·17

A glance at this table suffices to show that alcohol, even in the small proportion of 5 per cent., exerts a powerful chemical effect on blood, so powerful as to entirely derange one of its most important functions—namely, the function of respiration. The alcohol seems to have acted like an asphyxiant, inasmuch as it has not alone diminished the power of the red corpuscles to absorb oxygen, but to exhale carbonic acid, and that too in the same way, though to a somewhat lesser extent than morphia does. This peculiar chemical action of the alcohol on the blood nerve-pabulum may be thought to give a reasonable explanation of the paralysing action of alcohol upon the nervous system, seeing that oxidation is the motor power of all vital action, and in direct proportion to its activity are the manifesta-

tions of life accelerated or retarded. Every breath we draw, every movement we perform, every thought we think, is but the outcome of the transformation of matter under the influence of oxygen. If, then, it be true, as above shown, that alcohol possesses the power of preventing the constituents of the blood from being properly oxidised, and thereby fitted for the purposes of nutrition, it is easy to account for its producing a chain of more or less well-marked neurotic symptoms terminating at last in coma and death.

TWO CASES OF CHOLECYSTOTOMY.[1]

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CASES of intense pain in the region of the gall-bladder, and frequently called localised peritonitis, are of no uncommon occurrence in general practice. When such a case is definitely recognised, from its situation and other circumstances, as one associated with the gall-bladder, the pain may be accounted for either by the passage of a gall-stone, or from over-distension of the gall-bladder itself, due to the retention of bilious fluid from any cause whatever. I say this because in one of the cases to be narrated the relief from the discharge of the accumulated bile was so sudden, so complete, and so far permanent, that, no gall-stone being found, I feel inclined to denominate and describe it as one of pure retention of *bile*. I do not consider for a single moment that gall-stones are soluble and removable by any medical means—by any means whatever, except surgical operation. But the remarkable benefit and almost instantaneous relief from hepatic colic, as it might be called (meaning thereby the acute and frequently agonising pain already referred to), by the administration of ethereal and chloroform mixtures, are now very easily explicable on the supposition that there is retention merely of bile, and that the cause of this retention, spasm of duct paralysis, or partial paralysis of the gall-bladder itself, is so modified as to allow the escape of the bile. It is absurd to suppose that any medicine internally administered could in a short time so dissolve a gall-stone that there should remain nothing of it. A gall-stone put into ether itself will take some considerable time to dissolve, and surely it would take much longer if the gall-stone is in the bladder and the ether mixture in the stomach, requiring to act in some distant manner by influencing the blood. Most cases of retention will be benefited, perhaps even cured, by the administration of drugs, except probably the retention due to gall-stones. And the difficult thing is to know when to operate and when to leave it alone. You can never be sure in any one case that there are gall-stones unless some have been passed and found. In such a case, when an acute attack comes on, I would operate at once. When the pain did not soon pass away, and when drugs were providing only a limited amount of relief, I would operate. The presence or absence of jaundice would have very little influence in affecting my decision, as it is an inconstant symptom. The situation of the pain, its spasmodic excruciating nature, would be a sufficient guide; and still more so if a distinct tumour could be made out in the usual situation of the gall-bladder.

CASE 1.—Miss M. W——, aged fifty-four, came to the Samaritan Hospital for Women in August, 1887, complaining of intense pain over the epigastrium. She was sick, vomiting, and slightly feverish. She had suffered from many such attacks, which had usually passed off within twenty-four hours. She was subject to bile, she said, and had a poor appetite. In appearance she was tall, thin, bony, and nervous. A fulness was detected in the epigastric region, not reaching from the right hepatic side downwards and across towards the left iliac fossa, but vertically to the right of the mesial line. There was pain on pressure. Treatment of ordinary medical kind gave her no relief, and on the third day of her sufferings I performed cholecystotomy. She took the anæsthetic badly (chloroform), and the operation had to be hurried through. The gall-bladder was pressed firmly against the abdominal parietes, and, on being incised, gave vent to about a saucerful of extremely thick consistent bilious matter. No stone could be detected by the finger, and no time was wasted examining particularly for stone. A stitch was put through the lower part of the wound, including the edge of the gall-bladder, a drainage tube inserted, and a large pad of absorbent iodoformed cotton wool put on. The recovery was uninterrupted. She was immediately relieved of her pain, and the vomiting ceased. The temperature rose to 100°. For several days there was a discharge of bilious matter, which gradually decreased, and the wound closed. She was marked "cured" on the twenty-first day.

CASE 2.—Mrs. U—— had suffered frequently from fits of gall-stones, as she had been told by several medical men. No gall-stones had ever been found in the motions, although careful watch had been instituted. She ultimately got so bad that the administration of chloroform, which had on various occasions been carried on for several hours, on one occasion for six hours before the spasm wore away, was the only means of affording her any relief. When I saw her, a pyriform tumour extended from the ribs, slightly to the right of the middle line down below the umbilicus. It was painful to touch. She was a thin spare woman, and the operation was easily enough performed in February, 1887. The gall-bladder was pressed up hard against the abdominal parietes; and the only fear one had was that on the escape of the fluid the gall-bladder would fall away from the abdominal walls, and allow passage of blood or bile into the peritoneal cavity. This fear was practically groundless. The opening was made about the upper third of the tumour; a quantity of bile escaped; the edges of the incision into the bladder were retained by hooked forceps, and not by pressure forceps. The finger passed in detected stones, which were taken out with a small spoon. Three stitches were put in to retain the gall-bladder in contact with the abdominal walls. As there was not the slightest suspicion that any extraneous fluid had escaped into the cavity of the abdomen, there was no attempt at sponging. An indiarubber drainage tube was put in, and the wound dressed with iodoformed absorbent cotton. This patient, who was already reduced to a very low ebb, and was extremely emaciated, made an uninterrupted recovery; in fact, had neither shock nor post-anæsthetic sickness, but felt so well in a few days that she desired and was allowed to get up.

I think I am justified in bringing these two cases before the Gynæcological Society, because, so far as my experience has gone, cases requiring cholecystotomy have appeared far more frequently in the female than in the male. Looking back over my general practice, I am satisfied there have been many cases which would not only have been benefited by, but now I think urgently demanded, incision of the gall-bladder. I have myself, in the earlier part of my career, sat frequently with patients suffering from agonising pain and administered chloroform and ether. Almost without exception these patients have been women. Indeed, thinking over the whole matter, and looking up my notes, I have been able to point to only two male patients who suffered probably from such a complaint. Of these two, one had a bad fit after drinking heavily for some time, and the other, a commercial traveller, was exposed to great irregularities in the matter of his diet. Both of these cases I now think were due to over-distension of the gall-bladder, and might have been quickly, effectively, and safely relieved by incision. I think the risks attending this operation are very small. Altogether I have now incised the liver and gall-bladder seven times, and have never had a death. But no doubt there are risks. The great risks are want of cleanliness in doing the operation, poking too much about the wound, and the presence of infectious or blood-contaminating sources. If these things are guarded against and the wound kept aseptic, I would not consider there was any more risk in an incision than there would be in administering ten grains of calomel.

[1] Read before the Glasgow Obstetrical and Gynæcological Society at their meeting in December, 1887.

YORK LUNATIC ASYLUM.—The report states that during the past year the improvements had been completed in the male wards of this asylum, and it was hoped the rooms and grounds occupied and used by the female patients would be considerably improved in the current year. The medical report showed that recoveries still continued at the steady rate of upwards of 50 per cent. The general health throughout the establishment had been very good, and no case of infectious disease had occurred. The financial position of the institution was satisfactory.

ON THE

TREATMENT OF EPILEPSY BY SIMULO.

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SIMULO is the fruit of the Capparis coriaceæ, a member of the hyssop family, found in Bolivia, Peru, &c. Out there the fruit is powdered and taken in wine. In England Messrs. Christy and Co. have prepared a tincture from the seeds. Dr. Larrea[1] reported that he cured himself of epilepsy by taking the drug. Dr. Hutchinson[2] found that it was totally useless in a case of severe hysterical fits, and also in a case of severe epilepsy. I have tried it in the following cases. (The quantities of each drug given are expressed in single doses, the medicine being always given thrice daily):—

CASE 1.—Arthur J——, aged seventeen, has severe epileptic fits, which last for a quarter of an hour, and the stupor for three hours. No family history of fits.

Week.	No. of Fits.	Drug.
1st	33	Tincture of simulo, 1 dr.
2nd	28	„ „ „ 1½ dr.
3rd	35	„ „ „ 2 dr.
4th	42	„ „ „ 2 dr.
5th	0	Bromide of potassium, ½ dr.
6th	6	No drug given.
7th	25	„ „ „
8th	26	Bromide of potassium, ½ dr.
9th	52	„ „ „ ½ dr.
10th	25	„ „ „ 2 dr.
11th	26	„ „ „ 2 dr.

After this the patient passed from observation.—*Result:* Neither simulo nor bromide of potassium was of any particular benefit.

CASE 2.—William P——, aged sixteen. Has been in several hospitals for epilepsy, where he has always been treated with bromide of potassium. Fits typical, numerous, severe; no family history.

Week.	No. of Fits.	Drug.
1st	6	Bromide of potassium, 15 gr.
2nd	4	Tincture of simulo, ½ dr.
3rd	3	„ „ „ 1½ dr.
4th	17	„ „ „ 1½ dr.
5th	2	„ „ „ 1½ dr.
6th	6	„ „ „ 1½ dr.
7th	3	„ „ „ 1½ dr.
8th	11	„ „ „ 1½ dr.
9th	1	„ „ „ 2 dr.

He thinks that for the last two months, during which he has had simulo, the fits have been both less numerous and less strong than during any other period of his illness.

Week.	No. of Fits.	Drug.
10th	19*	Bromide of potassium, 20 gr.
11th	3†	Tincture of simulo, 2 dr.
12th	3†	„ „ „ 2 dr.
13th	4†	„ „ „ 2 dr.
14th	11*	„ „ „ 2 dr.
15th	2	„ „ „ 2 dr.
16th	11*	„ „ „ 2 dr.
17th	2	Bromide of potassium, ½ dr.
18th	3	„ „ „ ½ dr.

* Severe. † Slight.

The patient was kept under observation six weeks longer, during which he took half-drachm doses of potassium bromide. He had no more fits.—*Result:* Simulo seemed to be of benefit, for when left off at the end of the ninth week the fits were very bad again, but they diminished directly it was continued.

[1] Brit. Med. Journal, vol. i., 1885, p. 1184.

[2] New Commercial Plants and Drugs, No. 10, p. 92.

CASE 3.—William L——, aged twelve.

Week.	No. of Fits.	Drug.
1st	16	No drug given.
2nd	10	Tincture of simulo, 1 dr.
3rd	8	„ „ „ 2 dr.
4th	0	„ „ „ 2 dr.
5th	4	„ „ „ 2 dr.
6th	4	„ „ „ 2 dr.
7th	0	„ „ „ 2 dr.

Result: The fits diminished in number whilst the patient was taking simulo.

CASE 4.—Owen M——, aged twenty-three. During the last winter he has had frequent, severe, typical epileptic fits; no family history of epilepsy. On admission, Feb. 5th, he had one fit, and on the 7th three fits. He had one fit on each of the following dates: Feb. 8th, 10th, 13th, 14th, 20th, 23rd, 25th, March 2nd, 7th, 23rd, and April 5th and 20th. On May 3rd he left the hospital. He was treated all the time with large doses of bromide of potassium and ammonium. He was readmitted on Oct. 12th. A fortnight after his discharge the fits began again. Since then he has had on an average three a week. On Oct. 13th he had one fit, on the 15th one, and on the 16th one; on the 17th he was given one drachm of simulo three times a day. On Nov. 2nd he had one fit, and on the 3rd two fits. On Nov. 17th he was discharged, having only had three fits during the month he took the tincture of simulo.—*Result:* Fits decreased whilst taking simulo.

CASE 5.—Henry W——, aged twenty-five. Has had occasional fits since he was twelve years of age. During the ten days previous to admission he has had fourteen or fifteen very severe epileptic fits. During the day of admission (May 28th) the patient had a series of severe fits. Six hours after admission he was given a drachm of simulo every four hours. On May 29th he had seven fits, on the 31st two, on June 1st one fit, on the 2nd to the 6th none, on the 7th one, on the 7th to the 18th none. The simulo was continued in the above doses during the whole of his stay. On Dec. 30th he came as an out-patient, no more fits had occurred till the previous week, when he had four. He did not come again.—*Result:* The patient improved whilst taking simulo.

CASE 6.—Florence S——, aged fifteen. During the last nine months she has had a fit about once a month. It is difficult to say whether they were hysterical or epileptic. The last one occurred three days before being seen. She attended as an out-patient for two months, and took one drachm of tincture of simulo three times a day. During this time she had no fits.—*Result:* Improved whilst taking simulo.

CASE 7.—W. L——, aged thirty-four. When twelve years old he had seven fits in a week, after which he lost the use of the right arm for three days. Each fit had an aura. At the age of sixteen another similar fit occurred. Since then he has always had periodical attacks of twitchings of the right side of the face and right fingers. He was in the London Hospital at the age of sixteen for two months, during which he took bromide of potassium. He was again there four years and a half ago, with the same treatment. He was in Guy's in 1884, under Dr. Wilks, who diagnosed the case as one of "unilateral spasms without loss of consciousness, following previous epileptic attacks." On admission in October, 1887, he said that for the last four years he had been in the constant habit of taking bromide of potassium in large doses; he had a very severe bromide rash. There was constant powerful twitching of the right side of the face and the right upper extremity, especially the forearm and fingers. There was paresis of the right side of the face, the right upper, and slightly of the right leg. He was given one drachm of the tincture of simulo thrice daily. Under this he rapidly improved, and was discharged in a fortnight. Before leaving the hospital he was so much better that he was able to sew rings on curtains, and the rash had almost gone.—*Result:* Considerable improvement whilst taking simulo.

The tincture of simulo is by no means nasty, and mixes very well with water. None of my patients have complained of any ill effects from the prolonged use of the drug. I have swallowed large doses of it myself, as has also a friend of mine; we neither of us noticed any symptoms whatever. I gave it to a child for a month in the early stage of cerebral tumour, without producing any effects. In my own case, it

did not diminish at all the power of grasp, as tested by the dynamometer. It will be a great boon if some other drug than bromide of potassium can be discovered for the treatment of epilepsy, provided that it be as efficient; for, as is well known, the long-continued use of bromide of potassium often produces disagreeable results. In the last case I have narrated it will be observed that the patient on admission was covered with a profuse bromide rash, which entirely disappeared whilst he was taking simulo. I would not for a moment have it be thought that, from these few cases, I claim for simulo that it will cure epilepsy, but in many of my cases there seemed to be a distinct improvement whilst taking the drug, and therefore it seemed worth while to publish them, in order to induce others to employ it, so that the profession should more quickly learn whether it be efficacious. In trying the effect of it, care must be taken to select suitable cases, for, whilst there are many so severe that no drug will benefit them, there are others so slight that it is difficult to say whether any improvement is due to the treatment or is the natural course of the disease; and, lastly, in the case of out-patients, one must be careful to choose such as are capable of being trusted to keep a written record of the fits and to take the medicine regularly.

ON TRACHEOTOMY IN LARYNGEAL PHTHISIS.

BY PERCY KIDD, M.D., F.R.C.P.,
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Two widely different opinions have been expressed as to the performance of tracheotomy in cases of laryngeal phthisis. According to Morell Mackenzie,[1] Solis Cohen,[2] and others, the operation should only be resorted to in case of impending death from obstruction of the larynx. On the other hand, some writers, such as Serkowski, Ripley, and especially Beverley Robinson,[3] have contended that tracheotomy is a curative operation in this disease, and recommend its adoption at an early period. Indeed, the last-named author goes so far as to state that tracheotomy is indicated as soon as "the nature of the disease is obvious and other means appear of no avail." The general practice in England, I believe, may be said to be fairly represented by the views expressed by Mackenzie and Solis Cohen; whereas the early performance of tracheotomy seems to have found some favour among American practitioners. The question was reopened last September at the meeting of the Association of German Naturalists and Medical Men by Dr. Moritz Schmidt,[4] who endeavoured to resuscitate the operation for laryngeal phthisis. In his paper he stated that he had performed tracheotomy in eight cases on account of dyspnœa during the last five years. One of these patients lived for two years after the operation, but without any decrease in the swelling of the larynx. In four cases, in which life was prolonged for a period of some weeks to ten months, tracheotomy distinctly reduced the swelling within the first fortnight, and death ultimately ensued from the pulmonary disease. One patient operated on three or four months previously had undergone much general improvement, and the larynx had been almost completely cured. In the case of a woman still living eighteen months after the operation, the laryngeal disease had quite healed for the last nine months and the lung affection had improved. Tubercle bacilli had been found in the sputum of this patient. Lastly, a man was shown at the meeting who had been almost completely cured of the laryngeal and pulmonary phthisis since the performance of tracheotomy four months previously. This patient's sputum had also contained tubercle bacilli. Dr. Schmidt does not state whether tubercle bacilli disappeared from the sputum of the patients that were considered cured. The advantages which he claimed for this treatment were increased oxygenation of the lungs, relief of the larynx from the irritation consequent on the forcible inspiration of air containing dust and other foreign material, and diminution of pain during deglutition. In conclusion, the author laid down the following indications for the operation:—

1. Stenosis, in any case, at an early stage. 2. Severe laryngeal disease, with relatively little affection of the lung, even where no stenosis exists. 3. Rapidly advancing laryngeal disease before dyspnœa ensues. 4. Pain on swallowing.

Before proceeding to discuss the points raised in this article, I wish to give the experience of the Brompton Hospital during the last four years. I select this period because the system of registration in use prior to that time makes it difficult to collect the records. During these four years over 4000 patients suffering from phthisis have been admitted, and in only four cases has tracheotomy been performed. The following is a short abstract of these cases:—

CASE 1.—A man aged fifty, the subject of tuberculous tumours of the larynx. This case was published in the Transactions of the Clinical Society (vol. xvii.), so I shall merely allude to it in the briefest way. Tracheotomy was performed on account of spasmodic attacks of dyspnœa, due to swelling of the aryepiglottic folds. The patient was temporarily relieved, but sank two days later.—*Necropsy:* In addition to the laryngeal disease, there was advanced phthisis of the left lung, with recent tubercular disease of the right, and tubercular ulceration of the intestine. Tubercle bacilli were abundant in the laryngeal lesions.

CASE 2.—J. A——, aged forty-eight. Physical signs of pulmonary phthisis at right apex; marked stridor, and dyspnœa. The vocal cords were almost completely fixed about midway between the median and cadaveric positions. There was great swelling of the ventricular bands and inter-arytenoid fold, without ulceration; the left vocal cord was slightly ulcerated. Tubercle bacilli were found in the sputum. Tracheotomy was performed by Mr. Godlee on August 14th, 1885, and the difficulty of breathing was relieved. About three or four weeks later an ulcer developed on his tongue, and the laryngeal ulceration had extended considerably. The patient's life was rendered miserable by the difficulty of expectorating, the immense amount of frothy viscid secretion that accumulated in his throat, and by the continual flow of saliva from his mouth. Tubercle bacilli were present in large numbers in the sputum. The patient gradually sank, and died on Nov. 9th, three months after the operation.—*Necropsy:* Diffuse tubercular ulceration and infiltration of the larynx and trachea. Tubercular ulceration of the tongue (tubercle bacilli in abundance in lesions). Right lung extensively excavated at upper part; lower lobe stuffed with miliary tubercles. Left lung emphysematous. Small cavities in the upper lobe; miliary tuberculosis of lower lobe. Tuberculosis of intestine and kidney.

CASE 3.—J. C——, aged fifty-one, suffering from laryngeal symptoms, mainly hoarseness and slight cough. No definite physical signs of pulmonary disease. There was general congestion of the larynx, with irregular ulceration of the vocal cords. The ulceration gradually healed, and small tumours developed in the larynx, causing obstruction, mainly below the glottis. No tubercle bacilli could be detected in the sputum for the first three or four months, but they were found on Nov. 27th, 1885, in very small numbers. As the dyspnœa had greatly increased, Mr. Godlee performed a high tracheotomy, and removed several small growths from the larynx by scraping on Nov. 28th. The dyspnœa was at once relieved, but similar growths gradually developed again, and caused much obstruction of the larynx. Owing to the irritation which it caused, the tube was removed a month or six weeks after the operation, and the patient could breathe with ease through his larynx. The tracheal opening had almost closed, when on Feb. 11th, 1886, the wound had to be reopened, and the interior of the larynx freed from the small growths by scraping. Relief from the dyspnœa was again obtained for some time. The patient could not wear the tube for more than a few weeks, and breathed, as well as expectorated, partly through the wound and partly through the glottis. He experienced very great trouble in expectorating his sputum, especially during the last few months of his life. His strength gradually failed, and he died on July 21st, eight months after the first operation. There were only very obscure physical signs of pulmonary disease at the right apex during the last six months.—*Necropsy:* The right lung contained a small cavity at its apex, with tuberculous nodules below. The left lung was in a state of commencing caseous pneumonia, with a few small recent cavities in the upper lobe. There was extensive tubercular infiltration and ulceration of the larynx and trachea, and tuberculosis of the kidney, spleen, intestine and mesenteric glands.

[1] Diseases of the Throat and Nose, vol. i., p. 386.
[2] Diseases of the Throat, second edition, p. 516.
[3] American Journal of Medical Science, 1879, p. 407.
[4] Deutsche Med. Wochenschrift, Dec. 9th, 1886, p. 871.

CASE 4.—J. S——, aged sixty, suffering from severe dyspnœa and dysphagia; voice clear. Examination of the larynx showedgreat swelling of the aryepiglottic folds, the vocal cords being almost in the median position. Adduction fairly good, but no dilatation of the glottis on inspiration. There was tracheal breathing over the manubrium and at both apices, but no other physical signs. A few days later the right cord was quite fixed in the median position, the left remaining as before. The infiltration of the larynx had much increased, and the dyspnœa became so urgent that tracheotomy was performed by the resident medical officer, Dr. Waugh, on May 1st, 1887. The dyspnœa was much relieved, but the man gradually sank, and died on June 5th, five weeks after the operation. Some râles were heard under the clavicles after the tracheotomy, but the physical signs were never very marked.—*Necropsy:* Extensive tubercular infiltration and ulceration of the larynx. Old fibro-caseous patches at the apices of both lungs, with a few small cavities. The rest of the lungs crammed with miliary tubercules. The kidneys and intestine were also the seat of tubercular lesions.

I have to thank my colleagues, Dr. Symes Thompson and Dr. Reginald Thompson, who had charge of three of the above patients, for permission to make use of their cases.

It must be confessed that the results of tracheotomy in these four cases will not compare favourably with the success obtained by Dr. Schmidt. In the first case the patient was almost moribund when the operation was carried out. Possibly his life might have been prolonged somewhat if tracheotomy had been performed at an earlier date. In the remaining three cases the patients were tracheotomised as soon as the necessity for the operation became obvious. From a perusal of Dr. Schmidt's paper, I am inclined to believe, without wishing to detract from the excellence of his results, that some of his cases were of a less severe type than those which I have just narrated. I gather this partly from the short description of the cases, and partly from the fact that the swelling subsided in several instances in a comparatively short time. This circumstance makes it probable that a considerable amount of the swelling was of the nature of inflammatory œdema, which not unfrequently disappears without any treatment. For it must be remembered that not all the changes met with in laryngeal phthisis are strictly tuberculous. Patients suffering from this disease are very prone to intercurrent catarrh, with much swelling of the mucous membrane, especially of the aryepiglottic and inter-arytenoid folds. This consideration suggests a doubt as to the wisdom of following Dr. Schmidt's first indication, and performing tracheotomy for stenosis in every case, without waiting to see whether the swelling is progressive or not. No doubt the coexistence of severe laryngeal disease with relatively slight affection of the lung would encourage one to hope that tracheotomy might be of some service. But unfortunately it is just in these cases of severe laryngeal disease that it is often absolutely impossible to say whether there is much or little disease of the lung. Case 4, above detailed, is a good illustration of this statement, the truth of which is well known to all who have seen much of this affection. The concurrence of a little emphysema of the lungs with laryngeal stenosis often renders auscultation and percussion almost futile. I have repeatedly come across cases, both during life and in the post-mortem room, in which a reliance on Dr. Schmidt's second indication would have resulted in the performance of tracheotomy, and where the necropsy showed that most extensive pulmonary lesions existed, the proportions of which had been altogether under-estimated by clinical examination.

To subject a patient to tracheotomy in whom laryngeal disease is rapidly advancing before there is evidence of stenosis seems to be uncalled for. In the first place, obstruction may not arise after all, and the laryngeal process may lapse into a chronic stage, or even be succeeded by some measure of repair. This sometimes happens, especially where noxious external influences, such as close unhealthy dwellings, dusty atmosphere, &c., can be removed. Secondly, it is not unfrequently found that a rapidly progressive tuberculosis of the larynx is associated with a similar type of disease of the lungs or intestine. In this case, even if the operation were to have any good effect on the larynx, it could not influence the processes going on in other parts. The pain caused by the act of swallowing, which is so distressing a feature in many instances, need not be regarded as calling for tracheotomy now that we possess in cocaine a drug that can be applied locally with so much relief to this particular symptom.

The advantages of tracheotomy in laryngeal phthisis as set forth by Schmidt are essentially the same that Beverley Robinson claimed for the operation eight years ago, though the latter writer based his expectations on the erroneous assumption that laryngeal phthisis is rarely a tuberculous affection. It is objected by Mackenzie that the irritation set up by the cannula often outweighs the good effects of rest which is given to the larynx. This was the case in one of my patients, who was unable to wear the tube for any length of time. There is another important objection to opening the trachea, which, as far as I remember, has not been insisted upon. One inevitable result of tracheotomy is to interfere with the effective performance of cough. When the action of the glottis is eliminated by the introduction of a tracheotomy tube, it becomes very difficult for the patient to cough up his sputum. The sudden expiratory efforts which he makes to remove it are no longer supplemented by momentary closure of the glottis as in normal coughing, and consequently the secretions hang about the cannula and stagnate in the bronchial tubes. The result is that the wound is apt to become infected by the tuberculous sputum, and the retention of the contents of the bronchi and cavities aggravates the processes at work in the lungs.

The effects of interference with the mechanism of cough are well seen in cases of laryngeal phthisis where, owing to destruction of the vocal cords the requisite closure of the glottis is rendered impossible. This condition, with its attendant stagnation of the bronchial and pulmonary secretions, is often followed by the development of acute suppurative and destructive changes in the lung. Another danger attaches to the impairment of coughing power. In his attempts to dislodge the sputum the patient makes violent expiratory and inspiratory efforts, and infective materials from the distended bronchi are liable to be sucked back during inspiration into remote bronchial tracts, and so spread the disease. Probably the miliary tuberculosis found in the lower parts of the lungs in two of the cases which I have narrated was produced in this manner. The same danger exists, though in a less degree, when the vocal cords are destroyed. But, generally speaking, a much-damaged larynx is better than a tracheotomy tube for purposes of expelling the sputum, for the ventricular bands often take on the functions of the vocal cords to a considerable extent when the latter are much injured.

If the local application of drugs such as lactic acid, suggested by Krause, should prove to have a distinctly curative effect on tuberculous lesions, it may be found advisable in certain instances to perform tracheotomy as a temporary expedient, so as to allow of a more radical treatment of the larynx. But before such a method is adopted more evidence must be obtained of the efficacy of local applications than is at present available. Unfortunately, hopes like these are considerably discounted by the fact that tuberculosis is an infective disease; and as long as the pulmonary process remains active there must always be a danger of re-infection of the larynx. These considerations, based alike on clinical and pathological experience, seem to point to the conclusion arrived at by Mackenzie and Solis Cohen, that stenosis is the only clear indication for opening the trachea in this affection. In view of the increasing tendency of physicians to invoke surgical aid with such excellent results in many diseases, it seemed to me that the experience of a large chest hospital ought to furnish arguments for or against the employment of tracheotomy in laryngeal phthisis. This experience I have endeavoured to give in the hope that it may reach the eye of any physician that may be disposed to recommend the operation in the wholesale way suggested by the writings of Beverley Robinson and Schmidt.

REMOVAL OF AN ENLARGED FIBROID UTERUS BY ABDOMINAL SECTION; RECOVERY.

BY W. K. McMORDIE, M.D.

S. C——, aged thirty, single, was admitted into the Samaritan Hospital for Women, Belfast, on January 26th of the present year. For two years previously she had suffered almost continuously from hæmorrhage, and for five months she was so feeble from loss of blood that she was unable to

attend to her work. The uterus felt irregularly enlarged to about the extent of a uterus at the sixth month of pregnancy. The sound passed four inches and a half, but the cavity was larger than this, as, owing to the narrow irregular outline, the sound failed to pass the full length. In her present state the woman could not earn her living, and she had no means of support except her daily work. She was most anxious to have the tumour removed. The risks of the operation having been fully explained to her, she expressed herself as willing to incur them upon being told that in case of recovery she would be able to return to her work.

Accordingly, on Jan. 29th laparotomy was performed. An incision was made in the median line about four inches long. The nature and size of the tumour having been clearly made out, the incision was prolonged upwards to the upper border of the umbilicus and downwards towards the symphysis pubes. The incision was then about seven inches in length. The uterus was drawn out with both ovaries. The ovaries were enlarged and soft, and were first ligatured separately. A wire was next passed round the base of the tumour, and tightened with a screw. The tumour was then cut away. A pin was now passed immediately above the wire, but the base of the tumour was so broad that the pin was found to be too short. I feared to twist the wire, as the stump was so thick, without the security of the pin, and so I applied the powerful clamp used by Dr. Keith of Edinburgh, immediately above the wire, which was removed. When applying the clamp care was taken to keep clear of the bladder and ureters. The stump was fixed in the lower angle of the incision, and the peritoneal surface of the abdominal wall was carefully applied round it. The upper part of the incision was brought together by silver wire, the lowest suture being close to the stump. The peritoneal cavity was not sponged out, as no blood escaped into it during the operation, and there was no provision for drainage. Salicylic wool was carefully packed round the stump, and below the handles and point of the clamp. The stump was dusted over with iodoform powder and the abdomen covered with salicylic wool, and a flannel binder applied. The tumour weighed 6½ lb., and there was a number of subperitoneal nodules.

The patient from the first made most satisfactory progress. The temperature never rose above 100°, and the pulse above 108. On the fifth day portions of the sloughing stump were removed at the edges, and the bowels made to act by an enema. On the seventh day the clamp came away and the sutures were removed, the upper part of the wound having healed by primary adhesion. The blood supply to the small portion of the fibroid mass below the clamp being cut off, a slough formed, and when the clamp was removed a cup-shaped cavity was left. On the fourteenth day the temperature and pulse were normal, and the stump healthy and healing rapidly.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

DISLOCATION OF THE HEAD OF THE FIBULA.

BY ASHLEY LEGGATT, M.B., C.M. EDIN.

A. M. W——, whilst playing football at the Oval on Saturday, Jan. 7th, slipped and fell with his left leg doubled up underneath him, so that (in the patient's own language) he sat on his own foot—i.e., the external malleolus, the internal being next to the ground. The pain at the time and for a few minutes afterwards was very severe, and the patient had to be carried from the field. He said that he had felt something give way. On examination the head of the fibula was found to be dislocated forwards, being plainly seen and felt beneath the skin; immediately behind and above the dislocated head of the fibula was a distinct hollow about an inch in diameter—the normal socket, of course, of the bone. The tendon of the biceps was very tense. Knowing the difficulty that generally exists in the reduction of this dislocation, Dr. J. Smith and I took him to St. Thomas's Hospital, so that an anæsthetic might be administered, where he was seen by Mr. Battle, who called attention to the apparent flattening of the muscles on the anterior part of the injured leg in its upper fourth, and to the evident approximation of the head of the bone to the tubercle of the tibia, in addition to the points already mentioned. While his boot was being taken off previously to the administration of ether, the patient felt something give, and we then found the dislocated head less prominent. The reduction was successfully effected by Mr. Battle, and also, I think, by the unlooked for action of the biceps; for in the early stage of ether administration, Mr. Battle holding the leg semiflexed and having his right thumb on the front of the fibula below the head, the patient kicked out, thus bringing the biceps into action, and the head of the fibula returned to its place with an audible snap. The leg was put up in a plaster-of-Paris case, and I was enabled to take him home the same evening. I had to remove the plaster four days subsequently, as the patient had to go in for an examination; there was no effusion, and the appearance of the joint was quite normal.

The case is interesting, firstly, on account of its extreme rarity: Mr. Erichsen in his work on surgery says he has only met with one such case. Secondly, on account of the peculiar and ready way in which it was reduced. Mr. Erichsen was unable to reduce his, owing to the tenseness of the biceps tendon; and the only other case I have seen, one in Edinburgh under Mr. Annandale, was never reduced, though attempts were made on one or two occasions under an anæsthetic. I cannot help thinking that the action of the biceps in this case was a good deal responsible for the favourable result. Thirdly, because from such falls the much commoner accident is subluxation or internal derangement of the knee joint, with displacement of one or other of the semilunar cartilages. It will be interesting to see whether the leg will remain sound when the patient begins to play again, as it never does in subluxation.

TUBERCULAR NECROSIS OF CRANIAL BONE LEADING TO PERFORATION.

BY GILBERT BARLING, B.S., F.R.C.S.
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THE rarity of this disease appears to justify the publication of a note of the following case.

L. P——, a girl aged seventeen years, came under my care recently as an out-patient, suffering from an ulcer over the right side of the frontal bone just in front of the coronal suture, a little above the level of the orbit. The edges of the ulcer were widely undermined, and its base was covered with a thin layer of pus, which pulsated synchronously with the heart, whilst on coughing a drop or two of pus was forcibly expelled from the deeper parts. Several sequestra, mostly about the size and thickness of a threepenny piece, were removed, a nearly circular aperture then existing in the bone of about an inch in diameter. Extending downwards from the perforation on to the cheek was a patch of superficial ulceration, with thin, livid, and undermined edges. There was also strumous disease of the right elbow joint and of the metatarso-phalangeal joint of the left great toe. Apart from these conditions the girl was in good health, and was quite free from head symptoms. There was nothing in the patient's appearance or in her history suggestive of congenital syphilis. The mischief in the frontal bone appears to have originated without injury about two years ago; a swelling then formed, from which the patient's medical attendant let out some pus. Since the sequestra were removed the ulcer has slowly tended to heal, and at the present time the probe fails to detect any dead bone.

Another case of tubercular necrosis of the cranium was under the care of my colleague, Mr. Chavasse, about a year ago. The patient, a child aged one year and a half, suffered from vertebral caries. At the post-mortem the following conditions were found: a sinus over the left parietal eminence leading to a circular patch of rough bone the size of a shilling, the external table being absent and the dura mater beneath thickened considerably. A little above the internal angle of the left orbit was a fluctuating swelling an inch in diameter; on cutting into this, thick curdy pus escaped from beneath the pericranium, and a circular patch of bare bone in process of separation from the external table was found beneath. A sinus at the outer angle of the same

orbit led to a similar patch of bone near the optic foramen. Examination of the granulation tissue from one of these patches proved that the condition was tubercular, though no attempt was made to determine the presence of tubercle bacilli. Caseous masses were found in the right lung and in the thymus gland, and there was, in addition, caries of the sixth dorsal vertebra.

TWO CASES OF UMBILICAL HÆMORRHAGE.

By JAMES GILROY, L.F.P.S. GLAS.

Two cases of umbilical hæmorrhage occurring within a comparatively short space of time, and each presenting points in rather strong contrast, prompt the reporting of them in the hope that some suggestions either as to the cases themselves or on the literature of the subject may be forthcoming.

CASE 1.—On Dec. 21st, 1877, Mrs. W—— was delivered of a healthy male child at full time. The labour was perfectly natural, and all went well, although I have previously had two placentæ prævíæ with the same patient. I called on Dec. 22nd, and found the mother progressing favourably and the child apparently all right. On the 23rd I called again. The mother was going on well, but I was informed that the infant had not passed urine since its birth. On examining the foreskin I found it imperforate, and being satisfied that there was nothing to be done but to cut the foreskin and see if the urethra was normal, I did so. I found the urethra quite intact, admitting the point of a probe, and I forthwith dressed the case. The child micturated shortly afterwards, before I left the house, about 12 noon. The same evening, about 10 P.M., I was hastily summoned, the messenger telling me that the child was thought to be bleeding to death. On reaching the house, I found his statement to be literally correct, but the blood was from the cord, the ligature on which had become loosened from some cause or other, probably rough handling and inexperience on the nurse's part; and she had not the requisite knowledge to enable her to search for the cause of the hæmorrhage and reapply the ligature. Immediately on my doing so the bleeding stopped, but the child was pallid, unable to suck, and bordering on syncope. Everything was tried—diffusible stimulants in minute doses, a few drops of brandy, and the subcutaneous injection of a minute quantity of sulphuric ether, &c. I remained for the two hours during which the little patient continued to live. The case was entirely the result of accident, and the only one of the kind I have known among about 500 midwifery cases.

CASE 2.—On January 26th, 1888, I attended Mrs. J—— in her first confinement. The case was natural, labour lasting some twelve hours, when she was delivered of a healthy male child. Everything went on safely and well with the mother and her infant, which she nursed at the breast, and after having her under supervision for nine days, I ceased attending her regularly—i.e., daily. The cord separated in the usual way on the eighth day, and the umbilicus appeared to be all right. On Feb. 11th, at 5 P.M., I received a message to attend, as bleeding had started at the umbilicus. On inquiry I was informed it began with a very slight oozing the day previously, and not to any alarming extent, to use the mother's words. When I saw the patient on this day it appeared to be very slight, and no appearance of any ulceration or rawness about the parts to account for it. The blood seeming to ooze from between the folds of the integument, I ordered cold applications and a moderately firm bandage. I saw the case the next morning, and found the dressings saturated with blood, on removing which the same state of affairs was noticeable as I have chronicled regarding the preceding day. The bleeding would stop entirely for a little while, and the moment the child cried and diaphragmatic action began, the umbilicus being on the stretch, the oozing of blood occurred. It appeared a mere spot, and, but for the condition of the dressings previously applied, it led me to believe that by careful bandaging and compression of a pad the hæmorrhage would cease. Accordingly I prepared a compress of several layers of lint, and a slice of cork an inch in circumference placed carefully at the back, and dipped one piece of the lint in a solution of catechu. I then applied a roller bandage with moderate firmness round the abdomen in such a way as to keep the compress firmly in place and to support the entire abdominal wall. At 11 P.M. I called again, and was sorry to find all had been useless, as the dressings were, as before, saturated with blood, the child in an alarming condition of bloodlessness, and evidently dying. I removed the dressings, and found the oozing still there whenever the abdomen was put upon the stretch. I thereupon applied the actual cautery, and put on dressing, with compress and bandage. I merely used a stocking needle as the most available instrument, and inserted the point lightly and carefully between the folds of the skin. Bleeding thereupon seemed to be entirely stopped, but the child died of syncope in half an hour afterwards, although every effort, as in the previous case, was made by the administration of stimulants in suitable doses. No bleeding occurred after the cautery was used.

INTUBATION OF THE LARYNX FOR DIPHTHERIA.

By JAMES G. CURTIS, F.R.C.S.I.,
SENIOR SURGEON TO THE COUNTY AND CITY OF CORK GENERAL HOSPITAL AND LOUTH INFIRMARY.

HENRY H——, aged ten years, was admitted into hospital on Feb. 21st, 1888, suffering from diphtheria. After about ten days, the disease extending, the case became alarmingly bad. Dyspnœa and insufficient aeration of blood tended to bring the case to a fatal termination. A consultation was held as to whether tracheotomy should not be immediately resorted to; but, from the surroundings of the case and condition of the lungs, the opinion was that it would not be successful. Intubation was suggested. Taking the tongue between the fingers of my left hand, I pulled it well forward, and at the end of an expiration I passed the tube through the larynx down the trachea as far as I wished. The patient did not seem to suffer the least inconvenience; there was neither struggling nor coughing; the relief was rapid, the air passing freely in and out of the tube. I kept the tube in for about twenty minutes; it was then withdrawn, and some coughing ensued, followed by expectoration, in which were shreds of membrane. There was no necessity to again introduce the tube, as a gradual improvement took place, and but for the state of one lung the patient is now comparatively well.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

CHARING-CROSS HOSPITAL.

TRANSVERSE FRACTURE OF THE LEFT PATELLA; WIRING.

(Under the care of Mr. BLOXAM.)

THE treatment of recent fracture of the patellæ by wiring of the fragments, as performed so successfully by Mr. Bloxham in the case which we record, is not one which has found general acceptance amongst those most frequently called upon to treat such injuries, and several reasons are given for this abstention from operation. In spite of the greatest care, suppuration of the joint has followed, with its attendant risks, and the patient has afterwards been in a much worse condition than if the treatment had been limited to those methods which are found to give in most instances a satisfactory result. Union by bone cannot be guaranteed, even after wiring; neither does this prevent refracture of the bone. However, the surgeon must himself decide as to the advisability of operation in any particular case. We are indebted for the following notes to Mr. H. W. Clarke.

The patient, a carman aged thirty-five, slipped off a lift about eight feet from the ground on Oct. 26th, 1887. He felt a "snap" in the left knee, and then found that he was

unable to bend that joint. On examination there was found to be a transverse fracture of the left patella, the fragments being separated several inches, with much swelling of the joint. The limb was placed on a pillow and an ice-bag applied to the knee. The previous history of the patient showed that with the exception of an attack of rheumatic fever in 1880 he had always been a strong and healthy man, of temperate habits.

Nov. 3rd.—The knee is not so much swollen and the fragments are about one inch apart. The general condition of the patient is very good.

12th.—Swelling has much subsided. Mr. Bloxam to-day decided to wire the patella. He directed the limb to be well washed with hot soap and water, and then with a solution of perchloride of mercury. The patient having been placed under ether, Mr. Bloxam (with the strictest antiseptic precautions) made a longitudinal incision over the centre of the fracture down to the bone. The fragments were found to be three-quarters of an inch apart, a small amount of fibrous tissue being interposed between them, which was removed, and the joint emptied of blood-clot. Having drilled obliquely through each fragment, they were brought together by means of silver wire, and having provided for good drainage at the outer side of the joint, the soft parts were brought together by silver sutures, the wound dressed antiseptically, and the limb placed on an iron back splint and then in a swing cradle.

13th.—Patient had a restless night. At 10.45 P.M. twenty minims of liq. opii sed. were administered, and this dose was repeated in four hours. The patient complains of pain in the heel, but not in the knee. Pulse 80; temperature 99·4°. Wound dressed. Good oozing was found to have taken place through the drainage-tube. As there was some tension of the soft tissues, which were sodden and infiltrated, Mr. Bloxam divided the superficial silver sutures, but did not remove them.

14th.—Passed a fair night. At times, however, he had a slight pain in the knee. Pulse 72; temperature 99°.

16th.—Superficial sutures removed. Wound healing, and dressed antiseptically as before. Patient comfortable.

23rd.—Drainage tube removed. Limb placed on a pillow, which was found to be more comfortable than the swing cradle. Temperature normal.

Dec. 6th.—Nothing special to note since the 23rd ult. Patient is very comfortable. No pain in the knee. Temperature normal.

7th.—Wound touched with nitrate of silver.

10th.—Wound has quite healed.

19th.—Pillow removed. No pain or discomfort in knee.

25th.—Back splint applied to the limb. Patient got up, and was able to walk around the ward.

29th.—Patient gets up each day, and is able to walk better. A leather splint was moulded to the limb to-day.

Jan. 6th, 1888.—Patient discharged.

Feb. 6th.—The patient has considerable power of flexion and extension. Fragments united by bone. He is able to follow his ordinary occupation.

DEVON AND EXETER HOSPITAL.

COMPOUND COMMINUTED AND DEPRESSED FRACTURE OF THE SKULL; TREPHINING; RECOVERY; REMARKS.

(Under the care of Mr. C. E. BELL.)

G. K——, aged fifty-one, a railway labourer, was admitted into the hospital on Oct. 13th, 1887. Whilst at work the same morning, tarring the under surface of a bridge over the railway, the man fell backwards, pitching on his head against a stone buttress.

On admission, about two hours after the accident, the patient was found to be a strongly built heavy man, suffering somewhat from shock, but answering clearly all questions put to him, although he remembered nothing of the accident—in fact, did not recollect having gone to work in the morning. He complained of severe pain in his head, especially in the forehead. Has vomited once since the accident. Temperature 98°; pulse full, but somewhat slow. Pupils regular, but acted slowly. On a level with, but about an inch to the left of, the occipital protuberance there was a small scalp wound leading down to bone, which was depressed over an area the size of a sixpenny-piece.

Under chloroform, Mr. Bell, having exposed the bone, trephined the skull a little to the left of the depression, but including half of it in the cut of the trephine. The inner table was fractured and driven in upon the dura mater, which was uninjured. The loose fragments of bone were removed and the rest elevated. The wound was well washed out with warm carbolic acid lotion, a drainage tube inserted, and the edges of the wound brought together with silk sutures. Dry dressing (iodoform and Gamgee tissue) was applied, the man removed to bed, and an ice-bag applied to the head. The drainage tube was removed at the end of twenty-four hours, and the dressing reapplied. He made an excellent recovery. He has been seen frequently since, suffers no pain or inconvenience, and follows the same employment as before.

Remarks by Mr. BELL.—This is the fourth case of trephining which I have had under my care in the hospital in the past fifteen months, in which I have adopted a similar mode of treatment, and they have all made excellent recoveries. They were all operated on immediately after admission and without waiting for the so-called symptoms to develop, and to this, I believe, is due the successful results obtained.

LEICESTER INFIRMARY.

A CASE OF PLEURO-PNEUMONIA FOLLOWED BY GANGRENE OF LUNG AND ABSCESS; RESECTION OF RIB; DRAINAGE OF LUNG ABSCESS; RECOVERY.

(Under the care of Dr. BLUNT.)

WE are indebted for the following notes to Mr. J. B. Okell, house-surgeon, by whom the operation was performed.

W. L——, male, aged twenty-nine, was admitted on Feb. 21st, 1887, with cough, dyspnœa, and great pain in the right side. On examination, all the signs of pleuro-pneumonia were present on this side, the left lung being normal. Respiration 40; pulse 92, strong; temperature 103·4°, which rose to 104·2° on the following morning.

Three days after admission eight ounces of clear serum were withdrawn from the right side by the aspirator; this did not seem to relieve him at all. On the night of March 6th his cough became most troublesome, and he expectorated thirteen ounces of most offensive and purulent sputum. After this his temperature came down, but the cough and purulent expectoration continued until May 5th, when it became much diminished, and the patient was allowed to get up in the evening. The expectoration again became extremely abundant and offensive on May 18th. On the 25th the patient was not nearly so well; the offensive expectoration still continued. He was losing flesh rapidly, suffered from night sweats, and the temperature ran up at nights. The sputum was stained for tubercle bacilli, but none were found. As the patient did not improve, and an abscess in the lung was suspected, his condition was explained to him, and he determined to leave himself in Dr. Blunt's hands.

Accordingly, on June 29th, chloroform having been carefully administered, an aspirator was inserted over the suspected spot—viz., about an inch below the angle of the right scapula,—and nothing being withdrawn from the pleura, it was thrust through the lung tissue until a large cavity was struck, from which some very offensive pus was withdrawn; the aspirating needle being left as a guide, an incision was made down on to the rib, and an inch and a half resected; the lung tissue was cut through until the abscess was freely opened; into this a drainage-tube half an inch in diameter was introduced; it was then dressed with wood-wool. The patient bore the operation well. As the dressing was saturated through, it was changed the same evening, the discharge still being most offensive. Temperature normal.

June 30th.—Patient passed a very comfortable night. No sweating. Very slight expectoration. The disagreeable taste in the mouth had gone. Temperature subnormal; pulse 76.

The dressings had to be changed night and morning for the next four days, then once a day for three weeks.

From the date of the operation the patient progressed most favourably, the temperature never reaching above normal, and the expectoration ceasing in a few days; food was taken well throughout, and flesh gained rapidly.

On Aug. 6th the drainage tube was taken out. The wound healed up within the next few days, and on the 18th the patient was discharged as well, and sent to a convalescent home at Scarborough, where he stayed a month, during which time he gained nearly a stone in weight, having no cough, and being able to get about well. When Mr. Okell last heard from him, he was perfectly well.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

EPITHELIOMA OF THE RIGHT EAR; REMOVAL OF THE UPPER HALF OF THE EAR; RECOVERY; REMARKS.

(Under the care of Mr. VINCENT JACKSON.)

ALFRED P——, aged seventy-eight, was admitted on Oct. 20th, 1887, on account of epithelial cancer involving the right ear. By occupation he is a furnace-man, and had pursued this calling always, and with the exception of his present ailment his health had been good. About four months since a wart was felt on the lower edge of the upper portion of the helix of the right ear. The wart soon ulcerated, and in this way it spread until it reached the size of a shilling. At times he had suffered a good deal of pain, and now and then bleeding occurred. The appearance of the sore was characteristic of epithelial cancer, and a most careful examination behind the ear and below the jaw failed to detect the slightest enlargement of any lymphatic gland.

On Oct. 27th, a 5 per cent. solution of cocaine having been painted over both sides, as well as on the rim of the upper half of the ear, the upper third of the ear was transversely excised by scissors. The edges of the skin were laced together by fine catgut suture, then dusted with iodoform, and the whole of that side of the face and head covered with blue wool, which was first fixed by a a gauze bandage and then by a flannel one.

On Nov. 4th the patient was discharged perfectly well.

Remarks by Mr. JACKSON.—The reports of cases of epithelial ulceration of the ear and its removal by operation are sufficiently infrequent to warrant the recording of an example the first of its kind which has come under my notice. In many respects the record is typical. The patient was a male, much advanced in life. The outer portion of the ear was the part attacked, and the aspect, which was destroyed by the progressive as well as aggressive character of the affection, was the more common one—the facial rather than the cranial. Up to the period of the detection of the small wart on the upper part of the ear there had been no indication of any previous cutaneous irritation, such as eczema or allied skin disease. The occupation of a furnace-man is one of more or less exposure; and possibly in this direction we must look for a cause which may be assumed to be not only the initial but the promoting. The operation was borne well, and the recovery after was rapid and complete. Mr. Clendinnen, who referred the case to me, informed me a few days since that the man was well and hearty, and that there was no appearance of return of the disease in or about the cicatrix; neither was any glandular enlargement to be detected on the most careful palpation.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Extroversion of Bladder.—Treatment of Wounds of Femoral Artery and Vein.

AN ordinary meeting of this Society was held on Tuesday last, Sir E. H. Sieveking, President, in the chair.

Mr. G. H. MAKINS contributed a paper on Extroversion of the Bladder treated by Preliminary Division of the Sacro-iliac Synchondroses. The following is an abstract: The patient was a male child, aged five. An attempt to raise a flap after Thiersch's method had failed three years previously. On the second admission a cicatrix on the left side of the extroverted bladder marked the position of the unsuccessful flap, and prevented any considerable shifting of the skin on that side. On Nov. 29th, 1886, the sacro-iliac synchondroses were divided on each side, with the result of allowing approximation of the anterior superior iliac spines to the extent of one inch, with corresponding diminution of the gap existing in the situation of the symphysis pubis. This gain was maintained by means of continuous extension. On Jan. 22nd, 1887, an attempt was made to unite the opposite boundaries of the bladder, which failed, presumably, in great part, in consequence of the tension due to the old cicatrix. The bladder was then covered by means of a single lateral Thiersch's flap at a later date, the exposed surface having been reduced in area from 3¼ in. by 3¼ in. to 1½ in. by 1½ in., by the closure of the symphysial gap. The special features of the case were discussed, and some of the possible objections to the method considered, the following advantages being claimed for it. 1. Saving of time. In one of Trendelenburg's cases the whole procedure, excepting the closure of a small fistula, occupied eight weeks only. 2. A perfect mucous lining to the new bladder, interrupted only by a median cicatrix, is attained. 3. Failure of the primary operation in no way prejudices subsequent measures. 4. Should primary union fail, much smaller flaps are needed than in the usual operations. 5. The superficial area is not merely lessened, but a gradual backward sinking of the bladder wall accompanies the decrease in diameter. 6. The last two points are of special importance in cases like the one related, where cicatrices interfere with the ready fashioning of flaps. 7. The closure of the symphysial gap offers a better support for the abdominal viscera.—Mr. THOMAS SMITH said that any suggestion which would improve the chances of successful operation in cases of the kind was welcome, but he did not think much was to be hoped for from this novel method.

Mr. W. J. WALSHAM read a paper on a case of Wound of the Femoral Artery and Vein; Traumatic Varicose Aneurysm; Ligature of both Artery and Vein; Recovery. With remarks on the Treatment of Wounds of the Femoral Artery and Vein. The following is an abstract:—R. H. W——, aged nineteen, a medical student, received a punctured wound in the upper third of the left thigh. The profuse hæmorrhage that resulted was controlled by digital pressure and a firm bandage. On the following afternoon an arterio-venous aneurysm was detected. Three days later, as the tumour was increasing, it was explored. The femoral artery and vein in Hunter's canal were found wounded, and were tied above and below at the injured spot. The patient made an uninterrupted recovery. The question of the treatment of a wounded femoral artery and vein was discussed under the following heads: 1. Immediate simultaneous ligature of the artery and vein. The author gave twelve cases in which immediate ligature was applied. In four, and probably in five, gangrene occurred. It was submitted, however, that, especially as concerns the superficial femoral vessels, the danger of gangrene had been overrated. 2. Continuous pressure without operation. Of thirty-six cases so treated, thirty-five resulted in arterio-venous aneurysm. The dangers of treating this affection were commented on. The author concluded that pressure alone could not be recommended, and showed that pressure itself involved the danger of sloughing and secondary hæmorrhage. 3. Temporary pressure in order to allow the collateral circulation to become established before resorting to ligature. The danger of gangrene after ligature is reduced to a minimum when the collateral circulation has become established. Grillo (of Naples) tied both vessels in fifteen cases for aneurysm without a single bad result. In twenty cases collected by the author gangrene occurred in five only, and in four of these five cases the gangrene was due to other causes. 4. Ligature of the artery and application of pressure to the vein. Cases at St. Bartholomew's Hospital were mentioned in which the vein was pricked in tying the artery. No harm followed where the ligature was withdrawn and the artery tied higher up. But where the artery was tied at the same spot thrombosis and blood-poisoning ensued. In all, the hæmorrhage from the vein ceased on tying the artery or on applying pressure to the vein. The author considered that in a wound of the artery and vein there is some risk in tying the artery above and below and leaving the vein untouched, or in trusting to pressure upon it, and that such treatment should only be undertaken when the wound in the vein is very small, and there is a reasonable prospect of the external wound healing by the first intention. 5. The question of the lateral *versus* the circular ligature of veins. In four cases of wounds of large veins observed by the author its use was successful, as it was also in thirteen cases of sixteen collected from other sources. The fatal cases occurred before the days of antiseptic surgery. The following were the conclusions arrived at: 1. That when the femoral artery and vein are involved in a punctured wound of the thigh, the safest course is to apply pressure for a few days in the way described in the above case, in order to allow the collateral circulation to become established, and then to cut down and tie the proximal and distal ends of both the

artery and vein. 2. That immediate ligature (i. e. before the collateral channels have had time to enlarge) of both the femoral artery and vein, and especially of the common femoral vessels, is liable to be attended with gangrene, although this risk is probably less than has generally been assumed. 3. That ligature of both vessels when, in consequence of pressure, as of a tumour, the collateral circulation has become established, is attended with much less risk of gangrene. 4. That when the femoral artery and vein are wounded, ligature of the artery and pressure on the vein, if the wound of the latter vessel is a mere puncture, is a safe treatment, provided that the nature of the injury allows of reasonable prospects of the external wound being kept aseptic and uniting by the first intention. 5. That when the wound in the vein is too large to permit of treatment by pressure, the walls may be safely nipped up and a ligature thrown around them without obliterating the calibre of the vessel; but that this procedure should only be resorted to, as in the former case, when there is a reasonable prospect of the wound healing by the first intention. 6. That considering the grave risks of gangrene that attend the sudden obliteration of the common femoral vein, the lateral ligature should in this situation, for all small and moderate-sized wounds that require immediate ligature, be the treatment adopted. — Mr. HULKE had ligatured simultaneously in two cases of cancerous ulceration the external iliac artery and vein without any apparent ill results following. There was a great difference between aneurysmal varix and varicose aneurysm; in the former an elastic bandage might almost do away with its evil effects. A case was mentioned of a pistol-shot wound, in which the femoral artery and vein were bruised; the necropsy, ten days after the accident, showed that in a little more time the eschar between the lumen of the artery and vein would have given way and led to a direct communication between artery and vein. He had obtained good results in cases of lateral ligature of such veins as the internal jugular and longitudinal sinus.—Mr. HARRISON CRIPPS commented on the difficulty of discovering whether both vessels were injured, and he said he was disappointed with the title of the paper. He remarked on the great value of pressure in the treatment of wounded vessels; but this pressure must be done very systematically and intelligently, the most effective way being first to bandage the limb, and next to apply compresses above, below, and on the wound, with the pressure so arranged as to be easily shifted on to different parts as required. He did not place much reliance on statistics drawn from published cases. — Mr. THOMAS SMITH narrated the case of a boy in whom both vessels were wounded, and led to an aneurysmal varix, and in which systematic treatment by pressure ended in a cure.— Mr. PEARCE GOULD narrated the case of a lad under Mr. Lawson's care in which it was found advisable to ligature the artery, and with a very good result. Wounds in the arteries should, he considered, be treated in the same way, regardless of the situation of the artery. He did not feel sure of the value of delay, and pointed out some of the evil effects of pressure, making one hesitate about waiting before cutting down and securing both ends of the artery.— Mr. WALSHAM, in reply, could not agree with the remarks of Mr. Cripps on pressure, which had been tried in his own case with, he thought, the approval as to method of Mr. Cripps. He agreed with Mr. Gould that if there was much extravasation into the tissues Guthrie's rule should be followed, but not otherwise. No harm could result from waiting a few days and trying pressure.

CLINICAL SOCIETY OF LONDON.

Hyperpyrexia Treated by Cold.—Gall-stones causing Suppuration; operation; recovery.

AN ordinary meeting of this Society was held on the 23rd inst., Dr. W. H. Broadbent, M.D., F.R.C.P., President, in the chair.

Dr. WILLIAM M. ORD read a paper on a case of Hyperpyrexia in Acute Rheumatism treated by Ice-pack. The patient was a man aged thirty-two, a heavy beer drinker, who had contracted, three weeks before admission to St. Thomas's Hospital, a sharp attack of acute rheumatism, referred to exposure to cold. On admission, he was found to have acute inflammation of many joints, marked signs of pericarditis and slighter signs of endocarditis, with some pleurisy. His temperature was 102·4°; the respirations were quickened; the urine contained one-sixth of albumen and very little chloride. He was slightly delirious. Two days later the delirium had increased to such a degree that it was necessary to remove him from the large ward to a single-bedded ward. He was very violent, had hallucinations and delusions, and was with difficulty kept in bed. The delirium strongly suggested the existence of hyperpyrexia, but the temperature was only 101·4°. After this the temperature rose steadily, till at 4 A.M. on the morning of the fourth day from admission it reached 108·4°, while the patient had fallen into a state of restless unconsciousness, with tremors. The ice-pack was now applied, and was maintained for four hours, at the end of which the temperature was 100°, the patient had recovered consciousness and spoke sensibly, and the pulse had fallen from 160 to 100. During the next few days the temperature, after a rise to 103·4°, kept between 100° and 101°. The signs of pericarditis disappeared, but those of endocarditis remained. The joint affection had greatly decreased, and the albumen had disappeared from the urine. On the seventh day after admission the temperature again began to rise, and at 2 P.M. on the morning of the eighth day was 105·4°, the patient having passed through delirium into restless unconsciousness. The ice-pack was again applied. At 5 A.M. the temperature was 100°, and the patient had recovered consciousness. After this the patient made a steady recovery, and was discharged six weeks after admission in good general health and without sign of lung or heart disease. The treatment was effectively carried out by Dr. Ord's house physicians, Dr. Wheaton and Mr. Macevoy. Dr. Ord brought the case before the Clinical Society, not because it presented anything new or original, but with the intention of emphasising the value of cold applications to the surface of the body in hyperpyrexia. He urged that, notwithstanding the acknowledged value of the various antipyretic drugs in pyrexia, their use in hyperpyrexia was comparatively unsafe, large and frequent doses being required, whereby toxic symptoms were often produced. He admitted that the bath treatment was not of universal applicability, but pointed out that it involved no poisoning, and had a remarkable effect, not only in reducing temperature, but in restoring the nervous system to a natural condition. The rapid disappearance of inflammation in the thoracic viscera and joints was also noteworthy.

Dr. C. J. ARKLE read notes of two cases of Hyperpyrexia successfully treated by Cold. The first case was that of a railway clerk, aged twenty-seven, married, who was admitted into University College Hospital on Sept. 21st, 1887, with an ordinary attack of rheumatism. Previous health and habits good. Had syphilis nine years ago. His mother died after an attack of acute rheumatism. His sister was rheumatic. On admission he was treated with large doses of salicylate of soda. The night after admission he became very delirious, the joint pain disappeared, the skin was hot and burning, and the temperature went up to 110·4°. After employing the ice-cold bath for forty minutes the temperature fell to 97°, but ran up four hours later to 107·2°, while taking antifebrin. The bath was repeated for twenty-five minutes, after which the temperature fell again and showed no further tendency to run up excessively. There was no visceral lesion. The patient was ultimately discharged cured. The second case was that of a married woman, aged thirty. She had rheumatic fever eighteen years ago; no complications. There was no family history of rheumatism. Had been ailing with joint pain for a week before she was seen by a medical man. Temperature at midday on Oct. 9th, 1887, was 102·5°, at 10.30 the same night 110·4°. Patient violent and delirious. No bath was available, so she was treated with ice-cold packs. The temperature fell in one hour later to 101°. For the next twenty-four hours it averaged 103°; then fell to normal under salol and salicylate of soda. Was discharged well on Oct. 27th. She was readmitted with another attack of acute rheumatism and pericarditis, but was now convalescing. Dr. Arkle said that these cases show the value of the cold bath and pack as antipyretics. Both belong to the type in which the temperature, after maintaining for one or two days a moderate level, suddenly rises to an excessive height. In both cases the temperature was very tractable, and had little tendency to run up repeatedly. The cases threw no light on the etiology. One was a male, and the other a female; one a first attack, and the other a second. Both seemed mild, uncomplicated attacks. In both there was cessation of sweating, and in one disappearance of articular

pain. In both the delirium accompanied the hyperpyrexia, and was of the same violent character. Both patients had marked retraction of the head, and one severe or persistent opisthotonos.

Dr. MACLAGAN concurred in the treatment. As to the physiology and pathology of the hyperpyrexia, he argued that the metabolism of the tissues was interfered with through the nervous system, there being a kind of paralysis of the inhibition which normally kept the tissue changes within bounds. He drew a distinction between the pyrexia and hyperpyrexia, especially in rheumatic fever. The resistance or inhibition of the heat centres being removed, hyperpyrexia resulted, and this was therefore of nervous origin, and afforded the reason for salicylates being useless in true hyperpyrexia. Cold increased the inhibition of the heat centres, and did not act simply mechanically or physically. Cold acted on the heat inhibitory centres pretty much in the same way as digitalis did on the cardiac nervous centres. Cold therefore not only relieves the fever, but cures the nervous cause of the fever.—Dr. COUPLAND thought that the distinction between pyrexia and hyperpyrexia was hardly justified; for pyrexia is due as much to nervous derangement as hyperpyrexia, and in both cold acted as a remedial agent. He called attention to the marked nervous symptoms which heralded the rise of hyperpyrexia in Dr. Ord's case. Prodromal symptoms were very generally observed.—Dr. BROADBENT considered that the delirium and coma were not due merely to the high temperature, but were rather to be partly attributed to nerve disturbance of the same order as caused the hyperpyrexia. In relapsing fever nervous symptoms were sometimes observed preceding and accompanying great rises of temperature. He had observed in rheumatic cases delirium of the hyperpyretic type, but hyperpyrexia did not occur always. Both cases were treated by salicylates, and both ended fatally. Besides the abstraction of heat, an impression was made on the nervous system by the cold, and this enabled the heat centres to resume control over the heat-producing processes.—Dr. BASIL G. MORISON mentioned the case of an infant fourteen days old, whose pulse, consequent on over-feeding, fell to 30 per minute, the skin becoming cold. A drachm of tincture of belladonna was injected into the rectum, whereupon the pulse rose to 180 and the temperature to 103°. The child's life appeared to be in danger. Ice was applied and the pulse and fever fell. The heart stopped for a few beats. The child recovered. As an illustration of the action of cold, the case was thought to be interesting.—Dr. ANGEL MONEY said that the expression used by the patient in Dr. Arkle's first case afforded an illustration of the principle of dissolution as expounded by Hughlings Jackson.—Dr. BARLOW described a method he had practised of employing cold water, which chiefly consisted in pouring water from a height on to the patient lying in bed inclined downwards from the head, a mackintosh being arranged to carry the water off into a vessel at the foot of the bed. He had treated cases successfully on this plan, which could easily be carried out at the patient's home, and made the friends less timid than did the employment of the whole bath.—Dr. ORD, in reply, pointed out that Dr. Maclagan's theory of hyperpyrexia being due to paralysis of the heat inhibitory apparatus was supported to some extent by Dr. Buzzard's views as to rheumatic fever being due to an affection of the medulla, in which the heat centre was supposed to be located. He argued that the effect of the cold was not merely mechanical, and recalled some experiments which he made a year ago on the effect of cold baths on the dead. He had found that a bath which in the living would bring down the temperature several degrees had very little effect on the dead body. He considered that although the mechanism of the production of pyrexia and hyperpyrexia might be the same, the same stimulus which in one man would cause a normal reaction (fever) gave rise in another to an exaggerated reaction (hyperpyrexia). He advocated recourse to preventive measures wherever the temperature exceeded 105°. He added that he attributed the delirium accompanying pericarditis not to this affection, but to the effect of a rising temperature. He preferred the graduated bath as less uncomfortable and less dangerous.—Dr. ARKLE, in reply, said that information was wanting with reference to prodromal symptoms in his two cases, especially the latter.

Mr. PEARCE GOULD read notes of a case of Gall-stones exciting Suppuration, treated by operation, with recovery. The patient was a gentleman aged thirty-eight, who had symptoms of gall-stones two years before he consulted Mr. Gould for an abscess in the abdominal wall at the junction of the epigastrium and right hypochondrium. The abscess was opened, and 140 small biliary calculi were removed, together with pus. The sinus that was left was long in healing. No bile was discharged through it at any time. Many of the calculi showed evidence of spontaneous fracture of a larger calculus. Mr. Gould mentioned that he had found reference to thirty-five other cases of gall-stones making their way through the abdominal wall, but this was the only one in which the diagnosis appeared to have been made prior to the abscess bursting. The abscesses have pointed at various places in the abdominal wall, most often above and to the right of the umbilicus. As a rule no bile has escaped with the stones, and these latter have generally been numerous. There appeared to be lacking any satisfactory explanation of the very different results of biliary calculi in different cases.—Dr. ORD said he had never had an opportunity of investigating the disintegration of urinary calculi. In biliary calculi the disintegration might result from two very different sets of circumstances: it might be from the difference of consistency of the layers, or by contact of large calculi with one another. Further, while biliary calculi in the first instance were formed of a mixture of cholesterine and bile pigment, these subsequently crystallised out into different layers. A change into a different medium would facilitate disintegration.—Dr. MACLAGAN referred to a case of his, in which post mortem they found a hundred and eighty small calculi in the peritoneum, many of which were disintegrated. He suggested that the disintegration might be due to contraction of the walls of the gall-bladder when distension began.—Mr. GOULD, in reply, said it was rather remarkable that so few cases of disintegrated calculi had been recorded. All the specimens in the London museums were beautifully facetted stones, very different from the fragments handed round. He questioned the suggestion of Dr. Maclagan as to the possible cause of the disintegration, seeing that in many cases of severe renal colic, when great pressure must have been exerted during the passage of the calculi along the duct, no such disintegration occurred.

MEDICAL SOCIETY OF LONDON.

Lupus of Mouth.—Injury to Epiphysis of Ulna.—Ophthalmoplegia.—Gunshot Injury of Knee Joint.—Trephining for Meningeal Hæmorrhage. — Charcot's Disease. — Obliterating Arteritis.—Removal of Penis.—Carcinoma "en cuirasse."

THE meeting of this Society on March 26th was a "clinical evening"; a large number of interesting cases were exhibited, and there was a considerable attendance of Fellows. Mr. J. Knowsley Thornton, M.C., Vice-President, was in the chair.

Dr. ORWIN exhibited a case of Lupus of the Mouth, Pharynx, and Larynx, in a girl aged twenty-one. In 1886 he first saw her with lupus of the nose of seven years' standing, with perforation of the nasal septum; there was then no disease of the pharynx or larynx. Fifteen months ago he exhibited to the Society a case of primary lupus of the larynx. In the present instance he thought the disease had spread from the nose to the palate through the lymphatic channels, and that the pharyngeal and laryngeal complication might have resulted from absorption of the nasal secretion. He proposed to repeatedly apply the actual cautery if the case did not yield to ordinary remedies, and Dr. Semon had published a case in which he effected a cure by many hundreds of applications of the thermo-cautery.—Mr. LENNOX BROWNE had recorded eleven cases of lupus of the throat, and in almost every instance it had been associated with lupus of the face. Tertiary syphilis usually attacked the palate from the nasal surface, whereas lupus did so from the buccal aspect. Lupus attacked cartilage rarely, and bone never, and was often associated with crowding of the teeth. The distinctions between lupus and tubercle were mainly symptomatic; in lupus, patients rarely complained of their throats, and attributed the hoarse voice to nasal disease. He thought lupus of the throat would be more frequently found if oftener looked for.—Dr. OUTTERSON WOOD inquired if there were a family history of syphilis.—Dr. ORWIN said there was no such history. If the case were syphilitic, he thought it would have spread more rapidly.

MR. EDMUND OWEN brought forward a case of injury to the Lower Epiphysis of the Ulna, in a girl aged eighteen,

who, sixteen years ago, had been under his care at St. Mary's Hospital for an incised wound of the left wrist from a chaff-cutting machine. The blade had passed through the ulna just above the articulation with the lesser sigmoid cavity; that joint was not opened, but the lesser sigmoid cavity was sliced from the radius, and the wrist joint was laid widely open. The tendon of the flexor carpi ulnaris, ulnar nerve and artery, and some of the adjacent flexor tendons were cleanly severed. The extensive wound was treated *secundem artem*, circulation and cutaneous sensibility were restored along the inner side of the hand, and though inflammation attacked the surrounding tissues, and an abcess formed on the back of the hand, the power of movement became in due course as free as ever. Indeed, the child was left-handed, and as she grew up she easily used her knife in that hand, and ultimately became a useful domestic servant. But when the ulna had ceased to be developed it played the part of a bow-string, bending the radius over to that side. In September last the girl fell upon the inner side of the damaged wrist, and immediately afterwards sensation became diminished along the inner side of the hand, and the member became useless. How far the case might be influenced by hysteria Mr. Owen could not say, but it was evident that the ball of the little finger and the web of the thumb were wasted. Probably there was injury to the nerve as she fell. The chief interest consisted in the apparent overgrowth of the radius; actually, however, that bone was half an inch shorter than the opposite one, whilst it was bowed in its lower two-thirds towards the ulna, which latter bone was three inches and a half shorter than its fellow on the opposite side. The case was also of interest in that it showed how largely the ulna depended on the integrity of its lower extremity for growth in length. The upper epiphysis was of comparatively little importance in that respect, being a mere incrustation on the top of the olecranon process. Reference was briefly made to a case, just reported by Mr. Augustus Clay of Birmingham, in which, after damage to the lower radial epiphysis, the growing ulna had pushed the hand over to the radial side; and to a similar case recorded in THE LANCET of March 17th by Mr. Walter Brown of Leeds. In these cases, however, the deformity had not been so excessive as in the young woman just brought before the Society, chiefly because the radius was less dependent for its growth on the lower epiphysis than was the ulna. He asked, should the ulnar nerve be interfered with, and should the bowed forearm be treated like a bowed leg and a wedge-shaped piece of bone be removed?—Mr. KNOWSLEY THORNTON said it was interesting to note that union took place in the nerve without suture.—Mr. W. ROSE alluded to the case of a boy aged twelve, who sustained a bad fracture through the inner malleolus, followed by arrest of growth of the tibia. There was inversion of the foot with marked deformity. He removed an inch and a quarter of the tibia, sawed through the tibia above the epiphysis, and rectified the malposition. He doubted if end-to-end union of the ulnar nerve could have taken place in Mr. Owen's case.—Mr. DAVIES-COLLEY had a girl under his care with lengthening of the fibula after fracture of the tibia. He removed an inch of the fibula and sawed through the tibia, bending it outwards, and got a good result. In Mr. Owen's case the position of the hand was not characteristic of ulnar paralysis. He recommended resort to an operation to restore the integrity of the ulnar nerve.

Dr. SAMUEL WEST exhibited a woman, aged sixty-two, who showed Paralysis of all the Muscles of the Left Eye, except the superior oblique. She took to heavy drinking for a few months last year, and suffered then from severe headache, which she attributed to the drink. In January of the present year she had a return of the headache in the left temporal region, and one morning she noticed that her left eyelid drooped, and she saw double. The whole of the third nerve (including the fibres to the pupil) was paralysed. For the last week she had complained of gradually failing vision, but nothing could be discovered on ophthalmoscopic examination. There was no history of syphilis. He asked for information as to the seat of the lesion; the points against it being intra-orbital were the absence of pain, the want of prominence of the eyeball, the escape of the fourth nerve, and the absence of optic neuritis. He thought it might be in the third nerve where it crossed the optic chiasma, but that should be associated with hemiopia. Iodide of potassium had produced no effect on the disease. There was no anæsthesia of the eyeball, and no lesion of other nerves could be discovered.

Mr. WILLIAM ROSE demonstrated a case of Gunshot Injury to the Knee Joint. The patient was a coachman, who had always enjoyed good health. In November last he took a gun by the muzzle and pushed the butt down a rabbit-hole. It went off, and the whole charge passed through the outer side of his left knee. He exhibited the breeches worn on the occasion, showing a minute aperture of entry and a large aperture of exit. A temporary splint was applied, and the man was sent up from the country to King's College Hospital. On admission, it was found that he had had profuse hæmorrhage on his journey up. A ragged wound three inches and a half by two inches and a half was found, stained with gunpowder and leading directly into the joint. The outer third of the patella had been carried away, and the external condyle of the femur denuded to the extent of a two-shilling piece. The charred tissues were scraped and clipped off, and the joint cavity was for half an hour washed out by means of a Higginson's syringe with the following solution: a mixture of seven parts of carbolic (one in twenty of water) with three parts of corrosive sublimate (one in 500). The subcrural pouch was freely opened, a drainage tube inserted, the limb placed on a back-splint, and a dressing of iodoform and salicylic wool applied. The drainage tube was removed on the third day, and the patient recovered with scarcely an uncomfortable symptom. There was now fair movement in the joint. The points of interest were (1) the close proximity of the gun-muzzle to the knee, which thus produced a wound more like a bullet than a shot one, and (2) the heat of the charge, which caused considerable burning of the tissues, and ultimately led to the separation of a small slough.—Mr. KNOWSLEY THORNTON asked whether there was not the danger that in mixing antiseptic fluids one might not render the other inert.—Mr. EDMUND OWEN thought the joint should be kept stiff for the present.—Mr. ROSE said that Sir Joseph Lister frequently used the carbolic and corrosive mixture. He agreed that it was unwise to attempt motion too early in these cases.

Mr. DAVIES-COLLEY showed a carman, aged fifty-three years, who on Oct. 21st, when driving a van, fell down a distance of twelve feet, striking the side of his head. He was insensible at the time, but recovered consciousness. He then had slight paralysis of the left arm and bruising of the right temporal region; there was no indication of fracture. An hour afterwards he had complete paralysis of the left arm, and slight loss of power in the left leg and side of the face. Next day there was noticed a little numbness on the left side; the day after the facial paralysis had almost completely disappeared, and the patient could move the left leg, but the tongue was protruded with difficulty. He continued in much the same condition for ten days; at that time he was passing his evacuations involuntarily; was very drowsy, with slow and weak pulse; temperature below 97° F., and low delirium. On the eleventh day Mr. Colley decided not to wait longer, as he feared cerebral softening, so he trephined just in front of the middle of the right fissure of Rolando, using a semicircular flap. He came down upon the centre of a large clot, which he removed partly with the finger and partly by irrigation with perchloride of mercury. There was no suppuration, and the patient recovered rapidly. On the seventh day he was worse again. This was found to be due to the pressure of the dressing, for its readjustment was followed by disappearance of the symptoms. He could now move the arms well and grasp firmly. Cases were very rare of successful trephining for hæmorrhage between the skull and dura mater. Mr. Jacobson had succeeded in finding ten cases recorded during the last hundred years. When it was desirable to trephine in such cases, the pressure symptoms obviated any difficulty in diagnosis. He waited at first in order to permit of thrombosis of the bleeding artery, and perhaps the clot might also become absorbed. The dangers of waiting were that the clot might undergo puriform softening, or by pressure might cause inflammatory softening of the brain. The semicircular flap healed better than a crucial one.

Dr. C. E. BREVOR showed a patient, a carpenter, aged fifty-three years, who was suffering from Locomotor Ataxy, with disease of the left shoulder joint. There was no history of syphilis. Two years ago he suffered from weakness and giddiness, with shooting pains in the legs and then in the arms; for eighteen months he had been subject to frequent flatulence and eructations; for one year he had difficulty in walking in the dark, and for the last four days had œdema of the left arm. At

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present he had only slight staggering with the eyes shut, and was unable to walk "toe and heel" along in a straight line, he had lightning pains in the legs, and especially in the arms, and sometimes also in the head. The pupils were small, they reacted to accommodation, but not to light, the knee jerks were absent, and there was no anæsthesia of the legs. Eight weeks ago the patient noticed that the left shoulder began to swell, but without pain; he never had any injury to it. At present the joint was much enlarged, distended with fluid, and grating could be obtained; the head of the humerus was difficult to feel, but it did not seem to be wasted. The disease probably involved the upper part of the cord most, as shown by the lightning pains in the arms and head, the slight amount of staggering with the eyes shut, the absence of anæsthesia in the legs, and the affection of the shoulder joint. He had no attacks of vomiting, but suffered from frequent flatulence.—Dr. W. B. HADDEN asked if Dr. Beevor had examined the muscles electrically. He alluded to the fact that Charcot had found atrophy of the spinal motor cells in some of these cases, and it was possible that in the case under consideration some atrophy of the shoulder muscles might be present.

Mr. WALTER PYE brought an old man, over fifty-eight years of age, who was the subject of Obliterating Arteritis from Crutch Palsy. He had failed to find a record of a similar condition being produced by this cause. At the age of eight, the patient had an illness which he called rheumatism, which left him with a weakened leg and arm. A year ago he found he was losing sensation in one of his fingers. A fortnight later his little finger was affected, and it then spread to his hand and up the arm. In September last the limb was quite white and extremely cold, with loss of power and sensation. It was considered that this might be due to gangrene, and he was admitted into the hospital. The arteries were found firmly plugged from the axillary downwards, and there was increased pulsation in the subclavian. The arm was wrapped in cotton wool; it recovered, and the man left the hospital. He thought the condition now existing was a plastic arteritis following the pressure of the crutch, and that this had spread downwards, the whole lesion he thought could be explained mechanically.—Dr. W. B. HADDEN had seen three cases, two under his own care and one under Mr. Gould. He thought there was a group of cases of arterial disease characterised by plastic exudation, and producing thrombosis. In Mr. Gould's case there was a bony mass above the right clavicle. The affection commenced below and spread upwards, and it retrogressed from above downwards. In two of the cases there was superficial gangrene of the tips of the fingers.—Mr. DAVIES COLLEY considered the case one of local crutch injury to the artery, and akin to those injuries of the popliteal artery produced by wheel-pressure.

Mr. PURCELL read notes of two cases of the Thiersch-Gould Operation for removal of the Penis for Malignant Disease. The first case was a man (exhibited) aged forty-five, who had previously had three operations on the penis; in the first, half the organ was removed with the original growth; in the second and third, local and glandular recurrences were ablated. He was admitted to the Cancer Hospital on Jan. 16th with a fungating epithelioma growing from the root of the penis, and with glands in the groin. The operation for removal was performed on Jan. 21st in the manner described by Mr. Pearce Gould in THE LANCET of May 20th, 1882. He exhibited drawings of the patient's condition both before and after the operation. The temperature rose afterwards from infiltration of urine into the perineal wound, but fell again to normal, and a good recovery followed. The testicles were not removed, the patient had complete control over the bladder and had put on flesh. The second case was operated on on Feb. 21st, the patient being a man aged sixty-eight, a carpenter. Epithelioma of the penis developed in November of last year, and grew rapidly; there were no enlarged glands in either groin; the testicles were not removed, and the man had perfect control over his bladder. The temperature rose to 103°F. on the fourth day after the operation, and then fell to normal, the patient making a good recovery. Mr. Jessett had performed four of these operations, and Mr. Gould had likewise spoken of a second case. Sir William Mac Cormac had published six cases, the plan he adopted being that of Thiersch, bringing the urethra through an opening in the perineum after splitting the scrotum and slicing off the corpora cavernosa close to the pubes. Mr. Wheelhouse (Leeds) had done two cases after Thiersch's method, removing the testes in one case but not in the other.—Mr. JESSETT advocated this operation in all cases of cancer of the penis. He thought the testicles should be removed, as that procedure obviated the trouble arising from ungratified sexual passion.

Mr. J. H. MORGAN showed a woman aged fifty-two, who presented a typical example of the disease named and described by Velpeau as "Carcinoma en Cuirasse." There was a strong suspicion of syphilis, and fifteen years ago the patient had been salivated when suffering from white swelling of the left leg. Last summer induration and swelling of the right mamma appeared, and was followed very shortly by a similar condition of the opposite breast. Then ensued hardness of the skin of the chest over the whole surface above and between the mammæ. When sent to the hospital in October there was a hard œdematous condition of the whole of the skin of the chest, which was red and even on the surface, presenting almost perfect symmetry, and so hard as to obscure the exact condition of the mamma. The glands of both axillæ were little if at all enlarged. Since October little change in this condition had taken place, except some ulceration of the skin around the margin of the right breast. Both nipples were surrounded by thick crusts of pigmented epithelium.

HARVEIAN SOCIETY.

Surgical Treatment of Empyema.—The Functions of the Uvula and Epiglottis.

A MEETING of the above Society was held on March 1st, the President, Mr. Sedgwick, M.R.C.S., in the chair.

Mr. MANSELL MOULLIN read a paper on the Surgical Treatment of Empyema, based on an analysis of thirty-four cases. In sixteen of these a discharging thoracic sinus was already present. He pointed out that the primary cause of the collapse of the lung was the accumulation of fluid, but that the permanent cause of its non-expansion, when the pressure was relieved, was the alteration in the structure of the pleura and the lung itself, and that this alteration was the effect of the absorption from the irritating fluid in the cavity. When air had already gained admission without drainage being perfect, so that the pus had decomposed, the thickening of the pleura was much greater and more obstinate than where the empyema had never been operated on at all. Everything pointed—except in children and tubercular cases, which were expressly excluded—to operation as early as possible. Primary resection of a rib was hardly ever required, unless the empyema was loculated: indiarubber tubes very soon wore the ribs away, so that there was little chance of their being nipped as the thorax collapsed. Two tubes must always be inserted, even if they were only a few inches apart; they might be in the same intercostal space, but there must be two for effectual drainage. The most convenient situation was the one usually adopted, in the fifth or seventh interspace in the axillary line. Washing out the cavity was quite unnecessary. If air was allowed to pass freely in and out, there was no decomposition; the amount of pus discharged diminished almost to nothing, and the cavity rapidly closed in. In old cases, the first thing was to establish free drainage by making a second opening. On five occasions it was necessary to trephine the ribs, as the wall of the chest had practically become a solid bony cuirass. In two instances some of the ribs had been resected; in one two inches of four had been removed in order to allow the thorax to collapse, but the patient, who was already suffering from amyloid disease, sank from exhaustion ten days after; in the other, portions of only two ribs were excised, as the sinus ran rather round the thorax, following the direction of these ribs, then upwards as in the former case; this was attended with considerable benefit. No trouble was experienced from the intercostal arteries on any occasion. The direction in which the sinuses ran must, in each case, determine where the ribs should be cut, how many should be removed, and how much of each.—Dr. PHILLIPS criticised the view that an operation should be performed early. He had seen good results follow from aspiration. He also thought that two openings were not essential. A hard-and-fast rule could not be laid down as to the best place for the opening.—Mr. LOCKWOOD said cases often fell into the hands of surgeons after a preliminary aspiration had been tried and failed. He had been

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accustomed to make two openings and drain from each. Washing out was, in many cases, essential.—In reply, Mr. MANSELL MOULLIN said that, though he would not deny for a moment that cases of empyema could get well with only a single drainage tube, he was sure they stood a much better chance with two, as it was impossible that a cavity like the thorax could drain satisfactorily from one; there must be an indraught and an outdraught. He preferred an opening in the axillary line to one by the angle of the scapula, because there was less tissue to divide and less risk of displacement from movement of the arm, and, especially when patients were lying in bed, the pleural cavity could empty itself quite as thoroughly through one as through the other.

Dr. SCANES SPICER then read a paper on the Functions of the Uvula and Epiglottis. The various functions of the uvula in deglutition, phonation, articulation, respiration, and secretion, as set forth by different authorities, were first discussed; and then the author described an important function which has hitherto escaped detection—viz., that the uvula serves during normal (nasal) breathing as a conductor, guide, or dripping-stone to convey the nasal and lacrymal secretions out of the breath-way on to the lingual tonsil, there to undergo reabsorption into the circulation. These fluids are delivered on to the base of the tongue in a plane anterior to the epiglottis. From the lingual tonsil the unabsorbed portions trickle into the glosso-epiglottic fossæ, and thence into the pyriform sinuses, or hyoid fossæ, along the lateral grooves of the epiglottis. It was mentioned that two previous authors had considered the uvula as a conductor, or dripping-stone, to convey mucus &c. into the larynx for lubricating purposes, or to the base of the glottis, where it accumulates until swallowed or hawked up. Common experience teaches us that such intrusion of fluids into the larynx, as is assumed or inevitable, causes cough and spasm. Their views are hence, in part, the antitheses of the one above expounded. The functions of the epiglottes were next considered. It was pointed out that the balance of evidence was against any deglutition function of the epiglottis, but in favour of its movements and position having an important connexion with the pitch, intensity, and the quality of the voice.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Death-rates as Tests of Healthiness.

A MEETING of this Society was held on Friday, March 16th, Dr. Hill, President, in the chair.

Dr. LOUIS PARKES read a paper on Death-rates as Tests of Healthiness, of which the following is an abstract. The fallacies which may arise from a faulty enumeration of the population on which death-rates were founded were pointed out, and it was shown that in the ten years intervening between two censuses it was in many cases impossible to arrive at even an approximate enumeration by any method at present known. The only effectual remedy would be a quinquennial instead of a decennial census. The author next pointed out the fallacies which may arise from disregard of the different age and sex distributions of different populations when their death-rates were used for the purposes of comparison and as tests of health and sanitary condition. It was urged that no public statement of death-rates should be made which had not been corrected for age and sex distribution on the basis of the proportions found to exist in the country generally at the date of the last census. The method employed by the Registrar-General in the case of the twenty-eight large towns of England and Wales was simple and efficient, and with no great labour might be applied to every community of persons throughout the country. The influence of birth-rate upon death-rate was considered, and the late Dr. Letheby's views upon the relations which should subsist between a high birth-rate and a high death-rate were alluded to. The fundamental distinctions between mean age at death, and mean duration of life were insisted upon, and it was shown that the mean duration of life is one of the best tests of the healthiness of a population. In conclusion, the author brought under notice the high death-rates which have distinguished for so many years some of the northern manufacturing towns, and urged that this excessive mortality, which was largely confined to the earliest periods of life, was due to causes which could be brought under control, and that an authoritative inquiry into all its aspects was demanded. Such an inquiry would bring public opinion to bear upon a condition of things which should not be allowed to exist any longer.—In the discussion which followed, the President, Mr. Noel Humphreys, Mr. Lovett, Dr. Sykes, Mr. Butterfield, Dr. Bate, Dr. Seaton Saunders, Mr. Wynter Blyth, and Mr. Shirley Murphy took part, and Dr. Parkes replied.

Reviews and Notices of Books.

Medical Lectures and Essays. By GEORGE JOHNSON, M.D., F.R.C.P., F.R.S. Pp. 900. London: J. & A. Churchill. 1887.

[SECOND NOTICE.]

IN a former notice of this book attention was mainly devoted to the author's later views of the theories of cholera collapse. We have reserved for consideration to-day the greater portion of the volume, which consists largely of clinical lectures upon interesting cases which have come under Dr. Johnson's observation, together with the author's remarks upon Bright's disease, and an extension of his Harveian oration of 1882. Only one chapter appears to be entirely new—namely, that upon the Association of Senile Degeneration of the Bloodvessels of the Brain with Cerebral Softening and Mental Decay; no reference is given to date of previous publication, and the whole tone of the essay seems to bear the saddened impress of one writing from the disheartening results of long experience. The article is relatively short, but in small space it presents a forcible picture of the relentless doctrine of the close relationship between the risks of life and the state of the cerebral vessels. The tendency to an "inevitably fatal termination," in spite of all treatment, brings to a close a remarkably striking and thoughtful essay. Apart from this chapter, however, the volume appears to be composed of a large number of reprints, which have been subjected to a rigorous system of pruning and grafting, redundancies of expression and needless repetitions having been ruthlessly cut out, while numerous emendations have been added as results of the author's later experience, or as refutations of various adverse commentaries to which his views have been subjected.

Immediately after the chapter on cholera come several lectures dealing with various nervous symptoms or diseases, with remarks upon their treatment. Dr. Johnson's critical and historical mode of dealing with his own work is well illustrated in his description of "some nervous disorders that result from overwork or mental shock and anxiety." This chapter is based upon a course of lectures originally delivered at the Royal College of Physicians in 1858; seventeen years later lectures upon the same subject appeared in our columns, and now we have the whole subject recast, with the addition of later cases occurring as recently as December, 1886, and bearing out the author's contention of the satisfaction to be derived from the treatment of such cases by sedatives. He appears to prefer the temporary employment of chloral hydrate and bromide of potassium, but he instances several cases in which other forms of sedatives have yielded good results.

Good service is rendered by the collection of cases of poisoning from the incautious employment of concentrated solutions of camphor. Dr. Johnson first drew attention to this subject in 1873, and he here reproduces from various sources numerous other observations of a similar nature. In nearly every case this drug had been used rather recklessly, owing to the absence of any word of warning upon the bottle. Indeed, he remarks that "the printed directions are always vague, and not seldom, if acted upon, would lead to most disastrous consequences." The importance of the due recognition of epileptiform con-

vulsions from the use of an overdose of camphor is a valuable practical point well worthy of the consideration of the profession. In discussing the relation between croup and diphtheria the author expresses his adherence to the views of French pathologists, who teach that membranous croup is always diphtheritic, and that laryngitis from mere exposure to cold never results in the formation of false membrane; he urges that the employment of the term "croup" has led to much confusion, that it is to be regarded as a symptom rather than as a distinct disease, or, if employed, it should be only in association with a distinctive prefix, such as "spasmodic," "inflammatory," or "diphtheritic." These distinctions, however, appear to be very difficult to apply in any particular case. Another lecture which calls for special notice is that upon the laryngeal symptoms which result from the pressure of an aneurysmal or other tumour upon the vagus and recurrent nerves, in which an explanation is given of the occasional occurrence of bilateral palsy of the laryngeal muscles from pressure upon the trunk of one vagus or upon one recurrent nerve. It is very interesting to note that the author's theoretical explanation has received, in spite of Sir Morell Mackenzie's opinion, remarkable confirmation from experiments conducted by Dr. Weir Mitchell and Dr. Morehouse. Lectures upon pneumonia, pleurisy, and some other lung affections follow, and bear the obvious impress of having been prepared for the use of students; they do not enforce any views peculiar to the author, but, as they are mainly clinical, they can be read with advantage by any student tired with the dull routine of his text-book. The concluding chapter of this series is, however, of more widespreading utility. It is upon certain differences in the physical signs beneath the clavicles, on the two sides of the chest, in healthy subjects, and it presents in tabular form the results of the examination of fifty men by a committee of four. This table has already been published in Dr. Sibson's Medical Anatomy, and it is of great value as a warning against the misinterpretation of what might almost be termed slight "normal variations" from the ordinarily recognised "normal type." Numberless errors of diagnosis and prognosis could be avoided by a more general knowledge of the work of this committee.

The lectures upon heart disease and vascular troubles seem to be directed to different readers; the lecture upon valvular disease of the heart, from its lucidity and simplicity, would serve admirably for the use of a student who is just commencing hospital work; while, on the other hand, that upon "triple pericardial friction-sound, and on reduplication of the first sound of the heart," is based upon a closeness of observation and reasoning only to be fully appreciated by those who have long since passed the initial difficulties of stethoscopic work. The few lectures upon disorders of the digestive system are almost entirely clinical, and, while they serve to remind us of cases of unusual interest from the rarity of their occurrence, or from the explanation of the symptoms, they do not call for special remark. The case is different, however, with the chapter upon Bright's disease—the subject which has formed the life-long study of the author. As might have been anticipated, this chapter extends to considerable proportions, and, as when dealing with choleraic collapse, Dr. Johnson freely criticises the views of other writers. His words are remarkable for the self-restraint with which he handles adverse criticism. While he holds rigidly to his own opinions, he submits the views of others to careful consideration, and endeavours to explain the causes of what he regards as errors or inconsistencies. Different sections deal with the minute anatomy and physiology of the kidney, the various modes of testing for albumen in the urine, the general characters of Bright's disease, and its acute and chronic varieties; whilst the concluding section is devoted to a consideration of the treatment of acute and chronic kidney disease. The discussion at the Pathological Society so recently brought out the views of the author in comparison with the pathological doctrines of Sir William Gull and Dr. Sutton, that it scarcely appears desirable to restate in these columns the various points of difference, or to attempt to offer any final decision. It is enough for the present to note the ability with which Dr. Johnson maintains his ground and the courtesy with which he expresses his indebtedness to all who have directed attention to the vascular changes associated with the granular contracted kidney. The various modes of testing for sugar in the urine are treated at some length, and the full detail of the picric acid and potash test is given in useful form. The Harveian Oration of 1882 is reprinted with several pages of additional notes, calculated, we hope, finally to overthrow the claims put forth by later Italian authors on behalf of Cesalpino. Dr. Johnson has evidently restudied the history of Cesalpino, and comes again to the fray with numerous fresh facts and inferences.

Viewed as a whole, this book represents an enormous amount of labour upon a great number of subjects. We cannot but realise that, in looking back, Dr. Johnson must feel that his opinions, in the main, have stood the test of time, and that he has seen them gain additional strength from more recent work. Much that he now tells us appears to be so well established that the world has almost forgotten the energy necessary upon his part to enforce his views.

OUR LIBRARY TABLE.

Lectures on certain Diseases of the Jaws. Delivered at the Royal College of Surgeons of England, 1887. By CHRISTOPHER HEATH, F.R.C.S., Hunterian Professor of Surgery and Pathology in the College; Holme Professor of Clinical Surgery in University College, London, &c. Illustrated. London: J. & A. Churchill.—It is twenty years since Mr. Heath obtained the Jacksonian Prize for his essay on "The Injuries and Diseases of the Jaws," and his interest in this department of Surgery has never abated. In these lectures, therefore, we have Mr. Heath discussing topics with which he is thoroughly familiar, and on nearly every point discussed he is able to speak from large personal experience. The book ought to be widely read, especially as Mr. Heath has followed the excellent example set by Sir Henry Thompson in publishing it at the small price of half-a-crown.

The American Journal of the Medical Sciences. Published monthly. Edited by J. MINIS HAYS, A.M., M.D. Philadelphia: Lea Brothers and Co. March, 1888.—This is an old friend in a new guise. As a quarterly journal it has held a deservedly high position, and if the number before us is a fair specimen, it shows no falling off now that it appears monthly. The first paper is by Dr. S. W. Gross, entitled "A Clinical Study of Carcinoma of the Breast, and its Treatment," similar to his "Study" of Sarcoma published last year. This is the outcome of an elaborate analysis of carefully compiled statistics, and presents the well-known facts of this disease with mathematical precision. The outcome of Dr. Gross's inquiry is to convince him "that the evidence of the inheritance of cancer is far from satisfactory," although he has no doubt of "the hereditary transmission of the disease" in some cases. This inheritance he holds to be "of a peculiarity of the structure of the breast, especially of its epithelial elements, which predisposes it to the occurrence of cancer." This article is illustrated with two engravings, which are unnecessarily true to nature. The second article is by Dr. Byrom Bramwell, in which he details a case of aortic regurgitation which gave rise to a presystolic thrill and murmur—a case similar to those first published by the late Dr. Austin Flint. There are other excellent articles

on Ciliary Neuralgia, on Localised Sweating as a symptom of Thoracic Aneurysm, on an operation which has the appalling name Kolpo-uretero-cystotomy (!), and on a case of Adeno-sarcoma of the Spinal Dura Mater. The reviews of books, and the digests of the recent advances in medicine, are of the same excellent character as we always looked for in the old quarterly journal.

Medical History of the Meath Hospital and County Dublin Infirmary. By LAMBERT HEPENSTAL ORMSBY, M.D. Univ. Dub., F.R.C.S. Dublin: Fannin and Co. London: Baillière, Tindall, and Cox. 1888.—This volume, by Mr. Ormsby, one of the surgeons to the hospital, gives a history of the institution from its foundation in 1753 down to the present time, including biographical sketches of the physicians and surgeons who served on its staff, and has been prepared by the author in the hope that past students of the hospital might feel increased interest in the institution in which they derived their first impressions of their profession. The Meath Hospital was opened in 1753, rebuilt in 1770, and four years afterwards constituted by Act of Parliament the County Dublin Infirmary, the present building having been erected in 1822. The hospital has always had a high reputation, and its eminence as a centre of medical and surgical teaching has never been questioned. Physicians and surgeons of world-wide fame have been connected with this hospital, and the names of Dease, Cheyne, Porter, Graves, Smyly, Macnamara, and Rynd, those great leaders of medical and surgical science, are familiar to our readers. All these, as Mr. Ormsby observes, were Meath Hospital men, and all endeavoured by their lives and teaching to shed lustre on the time-honoured institution they loved so dearly. Considerable alterations have of late years taken place in the hospital, which have rendered the institution, as regards its internal, domestic, nursing, and hygienic arrangements, more than ever complete. The task which Mr. Ormsby has undertaken has been an arduous one; but he has succeeded in presenting his readers with a thoroughly readable book, which will amply repay perusal. More especially will the work be regarded with interest by old Meath men, who, as the author puts it, although scattered in all parts of the world, seem to have this distinctive character about them, that the memories and associations of their student life in the hospital among their old teachers not only seem never to be forgotten, but are remembered by them with feelings of gratitude and affection. The work contains portraits of Stokes, Graves, Smyly, Crampton, and others, as well as of the present staff.

The Asclepiad. Vol. V., No. 17.—Pulmonary or Pneumoparesis is the first article of this number. Dr. Richardson, replying to certain criticisms on his paper, remarks that if it be the fact that the two vascular currents in the lung are under no nervous guidance, one of the most anomalous conditions of circulation is present there. The second article gives much information on the art of embalming after the ancient method. The physical relief of mental excitement is the best and most characteristic item of the Opuscula Practica. The subject of the portrait and of the biographical memoir is Richard Mead. Under the heading "A History of some Original Researches in Therapeutics" the author proposes to render a short account of some of his more important original researches in therapeutics. The first instalment is of much interest.

BRISTOL CHILDREN'S HOSPITAL.—The report read at the twenty-second annual meeting of this charity stated that the income for the past year was somewhat in excess of that for 1886, and that, in consequence of some payment for medicines being required on the part of those who receive benefit from the out-patient department, the net expense to the hospital of treating 788 women and 2327 children, involving 16,929 attendances, was only £150.

"OBLITERATIVE ARTERITIS."

To the Editors of THE LANCET.

SIRS,—I think that many readers of THE LANCET will agree with Dr. Hadden and Mr. Walsham that the pathology of obliterative arteritis is yet obscure. For my own part, I still doubt whether spreading obliterative arteritis, independent of syphilis or injury, exists. I do not think that any single case of spreading inflammation of an artery or series of arteries has yet been established, either clinically or by post-mortem examination.

As regards the cases quoted by Mr. Gould in vol. xvii. of the Transactions of the Clinical Society, it may be said that not only do they differ very materially from the examples of obliterative arteritis recorded in this country, but also that not one of them is conclusive in so far as it supports the contention that the disease is of the nature of a spreading inflammation. The changes described in Winiwarter's case, for instance, are nothing more than those which may be observed in the walls of any vessel occluded by a thrombus, and in the two cases by Jasche and Burow no precise description of the condition of the vessels is supplied. Further, in all the cases quoted, there is no absolute proof that an embolus had not been lodged in the artery or arteries affected, or that thrombosis had not preceded the changes in the vessels rather than resulted from them.

The four patients whose cases have been recorded by Mr. Pearce Gould, by Dr. Hadden, and by Mr. Walsham are all yet alive, and thus the real state of these vessels is necessarily a matter for speculation; but there are, nevertheless, good reasons for doubting whether in any of them there has really been a spreading arteritis. In all the patients the upper extremity was the part affected, and the first point to which I would draw attention is the presence in two of the patients of an exostosis from the seventh cervical vertebra, a so-called cervical rib. This was present in Mr. Gould's case, and in the one recorded by Dr. Hadden in THE LANCET of Feb. 11th; for although not mentioned in Dr. Hadden's account of the case, such a growth was present, and was removed a few weeks ago by Mr. Morrant Baker in St. Bartholomew's Hospital, the patient being shown on Friday last at the Clinical Society. For my own part, I think that the occurrence of the exostosis was more than a coincidence in these cases, and in Mr. Baker's patient the operation showed that the subclavian artery was both flattened and compressed by the tumour. In Mr. Gould's case also the artery was certainly abnormally prominent, and, in the opinion of several who examined the patient, the vessel was, in addition, compressed, except where the arm was abducted and the shoulder raised; with this opinion, however, Mr. Gould does not agree. But not only may a cervical rib compress the subclavian artery, it may also compress the brachial plexus; and the suggestion that it did so in Mr. Gould's case is, I think, supported by the extreme pain which the patient suffered. Then, it must be remembered that both ulceration and gangrene are known to follow in some cases of pressure on, or injury of, the nerve trunks of the arm, and it is quite possible that in these cases of obliterative arteritis the gangrene had a double cause, as in the well-known instance recorded by Mr. Hilton in his lectures on "Rest and Pain," where a patient suffered gangrene of the ring and little fingers from the pressure of a cervical rib on the ulnar nerve and the subclavian artery—a case, be it remembered, in which also "no pulse was perceptible in the radial and only a very slight one in the ulnar artery,"—and a case which is almost entirely analogous to those recently described as examples of obliterative arteritis. Including this case, therefore, we have a total of five cases of obliterative arteritis recorded by English surgeons, and in three of them a cervical rib has been present. Surely this is more than a coincidence. But if we turn to one of the remaining two, I think the accepted pathology becomes yet more doubtful.

Mr. Walsham says of his patient's trouble: "I cannot help thinking that it will be found to depend upon some nerve lesion." I not only believe that this is true, but can adduce fresh evidence in its support; for in this patient the illness was followed by complete atrophy and paralysis of those muscles of the ball of the thumb which are supplied by the median nerve, and when I saw the man some weeks after he left the hospital the affected muscles showed the reaction

of degeneration in a marked degree, thus establishing the fact that the nervous supply of the hand was interfered with. There is, however, another point worthy of attention—namely, that in the case recently operated upon by Mr. Baker the pulse returned at the wrist within three days of the removal of the exostosis, and, although feeble, is still easily felt and counted; and that in Mr. Walsham's case I was able myself to count the pulse, although feeble, on every day on which I examined the arm, and found it fairly well re-established at a time when the muscles of the thumb were wasting. In neither of these cases, then, was the artery obliterated, and the title of "obliterative arteritis" is evidently misapplied.

My own opinion is that in some of these cases the impaired nutrition of the limb, the blue and cold fingers, and the sluggish circulation are dependent upon pressure on the brachial plexus, or perhaps, as in Mr. Walsham's case, on neuritis. In other cases I believe that the interference with the flow of blood caused by the pressure of an exostosis on the subclavian artery causes such a slowing of the blood stream in the smaller vessels that clotting ensues and extends. That this suggestion is not one which is unsupported by fact must be familiar to all who have examined the vessels of a limb some time after ligature of the main artery, for in many such cases clots will be discovered in vessels otherwise healthy. Finally, it is very probable that these causes are occasionally combined. This view, moreover, is not original, for it may be found clearly stated by Mr. Hilton in the work already alluded to, and for that reason is one which cannot be lightly set aside. I would therefore suggest that the term "arteritis obliterans" should not be applied to the cases in question until it is clearly proved by pathological investigation that such a disease exists independently of the complications I have mentioned.

I am, Sirs, yours faithfully,

Queen Anne-street, March 26th, 1888. ANTHONY A. BOWLBY.

New Inventions.

A NEW INSTRUMENT FOR THE TREATMENT OF WRY-NECK.

THE instrument consists of a head-piece, a chest-plate, and elastic accumulators. The head-piece is made of thin leather straps rough on the inside, so as to grip the head. A circular strap (A, Fig. 2) passes round the head just above the level of the eyebrows, and buckles behind and towards the side of the lesion. To this are attached two transverse straps

FIG. 1.

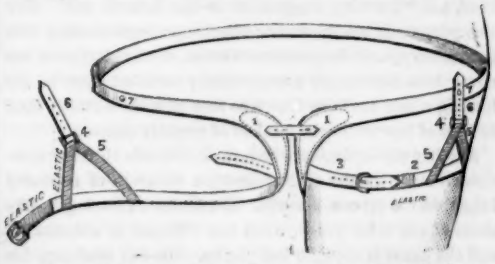
FIG. 2.

(B and C) which pass across the head and buckle on the side of the lesion. One horizontal strap (D) runs over the middle of the head, and buckles on the top of the head. This strap has two loops for the transverse straps to slide in. There are also two chin straps, one (F) that passes underneath the angles of the jaw and buckles on the sound side, and another (G) that passes under and has a cup for the chin. This last strap is buckled on both sides, and may or may not be used, according as the head-piece has a tendency to slip or not. The reason why the straps (A, B, C, D) are buckled is to enable the fitting to be most accurate, firm, but not too tight. Hooks for the accumulators are placed around the circular strap on the opposite side to the lesion. The chest-plate is moulded to the chest and laced in front. On either side, cut out for each axilla, is a half arm-hole, which is padded. Passing freely over the arm on the opposite side to the lesion is an arm-bridge, to which the accumulators are fastened on hooks. The accumulators are made of elastic in the middle and straps at each end, with holes to connect the hooks on the cap and arm-bridge. The accumulators vary in number, size, and strength, according to the age of the patient and the severity of the case. The object of this instrument is to get elastic tension on the neck in exactly the opposite direction to the lesion. Fig. 1 shows the chin and head pulled in exactly the opposite direction to what it was by lesion. To take the head-piece off only the straps F and G need be unfastened. I have tried this instrument in three cases in St. Bartholomew's Hospital:—Alice ——, aged two and a half years, developed wry-neck after injection of a cystic hygroma. She wore the instrument for six weeks and got quite well. Sarah ——, aged twelve years; congenital wry-neck. After division of the sterno-mastoid the patient wore the instrument for four weeks, and was almost completely well when she went out. Jane ——, aged seven years; congenital wry-neck. Wore the instrument for two months before the division of the sterno-mastoid, which was very firm and tense. She improved slowly. To hasten the cure the sterno-mastoid was divided, and the patient is now rapidly improving.

This instrument, which was made for me by Messrs. Arnold and Sons, of West Smithfield, is simple, efficient, and cheap. Anything like it has never been published or made, so far as I know. THOMAS ROBINSON, M.R.C.S., L.R.C.P.

THE BARROW PROVISIONAL PATENT TRUSS.

CAPTAIN H. BARROW of Leytonstone has introduced an improvement in the make of trusses whereby the perineal strap which is so annoying to the wearer of the truss in common use is dispensed with. By this arrangement, which can be adapted to abdominal belts &c., greater comfort and ease are given, the strap which retains the apparatus in position being worn round the upper part of one or both thighs, according to the character of the truss or belt. The following description will give an idea of the improvement on reference to the engraving and the



numbers which correspond, when the strap is applied to a double truss. 1, the pad; 2, continuation strap attached to the pad, with two inches of elastic between the end and the buckle, to give ease in sitting down; this strap passes round behind the thigh, and is brought forward and buckled in front to the strap 3, as shown on the left thigh; 4, a small roller on which the elastic band (5) plays; 6, leather strap attached to the top of the roller, which is fastened to the stud at 7.

THE LANCET.

LONDON: SATURDAY, MARCH 31, 1888.

OF the two Bills which are at present before the Legislature for the purpose of amending the existing procedure for the choice of a Coroner, we, for our part, infinitely prefer that brought by Mr. ISAACSON into the House of Commons to that submitted by the Lord Chancellor to the House of Lords. The Lord Chancellor proposes to add to the coroner's duties that of inquiring into the origin of fires. This is a course which we ourselves have urged. What, however, in our view is a much more important change is contained in the proposal to substitute appointment by the Lord Chancellor for election by the popular voice. The grounds on which the proposed alteration will be justified are no doubt partly the expense of popular election and partly the analogy of other judicial appointments. We do not wish at all to minimise such considerations; but, these notwithstanding, we confess that we greatly prefer the popular choice. It must be remembered that the coroner may have again, as he has done in the past, to act as a palladium against undue encroachments on the part of the military or the police on the established liberties of the people. The Lord Chancellor is probably a very good authority for making selection among rival lawyers, and when an office which only a lawyer can fill is in question, we are quite content to leave the appointment in his hands. But the office of coroner is not of this kind. His inquest is essentially different from the trial of a prisoner. What he has to discover is the cause of death. The question of the guilt or the innocence of any individual associated with the death is not primarily in issue before him at all, and does not properly lie within his jurisdiction. It must be determined elsewhere. The question which he really does determine is of a widely different character, and for its elucidation he needs to be skilled, not so much in the art of piecing testimony together as in the larger art of deducing scientific conclusions from evidence of whatever kind, and "tracking suggestion to her inmost cell." For this purpose it is a scientific rather than a legal training that is necessary, and the practical wisdom of the electorate has never been made more conspicuously manifest than in the leaning which has been shown to men of science rather than to men of law under the method of popular election.

Another consideration which tends towards the same conclusion is the nature of the discretion which is of necessity lodged in the coroner's hands. His duties do not begin, like those of any other judge, when the tribunal is constituted and the cause is brought *sub judice*. On the contrary, his most responsible and most delicate duty is over then, and has to be faced when, acting upon his own judgment, he decides in a doubtful case whether to hold an inquest or to dispense with it. Such a task demands in the highest measure science, tact, and medical knowledge—qualities which it would be very sanguine to look for in any marked degree in the nominees of the Lord Chancellor. Perhaps it may be said that these are not always the qualities which most appeal to a popular constituency; but if so, the rejoinder is conclusive. We know that popular election works fairly well in practice: official appointment would, in this connexion, be an untried experiment, and some misgivings as to its results may surely be pardoned; for who can fail to be struck with the circumstance that, whereas popular candidates are usually men in the prime of life, endowed with the full energy and *bonhomie* of healthy manhood, the *protegé* of the woolsack is only too often a man whom disappointment has soured and long struggle has exhausted, and who finds in promotion to a judicial office a solace for more or less of failure in a professional career.

WHILE summer and autumn are the seasons obviously suggested as the suitable time for holiday-making, cases arise in which the practitioner is consulted regarding the advisability of a holiday in spring and the most eligible places of resort at that period. As a rule, spring holidays are not to be frequently or lightly recommended. It is the most treacherous season of the year, suitable resorts are difficult to find, and the comforts of home are not to be rashly relinquished for the problematical advantages of travel. Many persons who meditate a holiday in March or April would do well to pause and consider whether they cannot tide over the present emergency, and wait until the advent of warm and settled weather gives them some security against the risks which beset the tourist during the variable temperature and sharp winds of spring. This admonition hardly applies, however, to those who are in a position to take a distant flight. Madeira, Santa Cruz, Algeria, Egypt, and many other places which might be named, afford ample choice to those who can take a holiday of a month or two, and to whom economy is not essential. Of the places just enumerated, the continental regions—Algeria and Egypt—are more suitable for early spring, while the oceanic islands are tolerable, and to many agreeable, up to the verge of the early summer. The intending tourist cannot too clearly realise that the spring climate of even the more favoured parts of the continent of Europe is exceedingly uncertain, and often far more trying to health than that of mid-winter. Within the last few weeks France and Italy have been visited by severe snowstorms, and now is the time when the *Mistral*, the *Bise*, and the *Föhn* make themselves unpleasantly felt in some of the regions most frequented by tourists and invalids. Many a dismal story has been told of the invalid who has left his own land and gone to Southern France or Northern Italy in spring in search of warmth and sunshine—only to be driven home again or to suffer serious damage from wind and cold. This, however, cannot fairly be described as the rule, but rather as a not very infrequent exception. The Riviera, which has usually so charming a climate in early winter, has not rarely a beautiful spring, but of this the tourist can feel no assurance beforehand. Frosts and cold winds may assail him, and the prevalent bright sunshine is apt to beget a carelessness and a neglect of ordinary precautions very perilous to health. Switzerland does not seek to tempt the spring holiday-maker, as June is well advanced before it begins to wake up from its torpor and prepare for the brief but busy harvest. Still less does the Rhineland or Northern Europe offer any attractions at this season.

Medical practitioners would do well to advise those of their patients who desire a brief holiday of two or three weeks in spring to confine themselves to the British islands, and to remember that at this season they should as a rule go south rather than north, and west rather than east. The south-western resorts of England and Ireland, which are so apt to prove unduly relaxing at other seasons of the year, may often be advantageously utilised for temporary residence in spring. Of such we may mention Torquay, Teignmouth, and Penzance in England, and Queenstown and Glengarriff in Ireland. These places are to many persons somewhat enervating at those periods of the year when the south-west winds prevail, but in spring, when the winds are usually easterly, they are fairly mild, without being debilitating. The east coast is wholly out of court at this season, and such resorts as Ilkley, Buxton, and Crieff, of which the bracing qualities are highly valuable at other times, are better avoided in spring. It is well to remember that in the British Islands the isotherms of winter run north and south rather than east and west, and hence that such places as Rothesay, Grange, and Llandudno are almost as mild at this season as the more southern sanatoria. In our islands, in fact, temperature is determined not by latitude, but by the prevailing winds—a circumstance which affords the key to the meteorology of Great Britain and Ireland.

There is one class of persons who often need advice upon the choice of a spring sanatorium—viz., those who, having wintered abroad in some very warm climate, desire to spend a little time at some intermediate station when *en route* homewards, rather than risk the sudden change involved in a direct journey to England. It is exceedingly hard to suggest unobjectionable resorts to meet this indication. A patient who leaves Algeria or Egypt at the end of March is at a real loss to decide where he can most safely halt before returning home in June. The Riviera naturally suggests itself, and the shores of the Lake of Geneva have been recommended. Rome, Capri, and Castellamare may suit some cases, but the spring climate of each and all of these places is too variable to enable us to recommend any with the assurance which is desirable. On the whole, patients who have wintered in a really warm climate should not be in any hurry to leave it at a very early date. Whatever disadvantage may accrue from the undue warmth of such places in the late spring is probably a less evil than the risk of a premature journey northwards. One of the many advantages claimed for Davos, St. Moritz, and the cold winter resorts generally, is that they tend to render the patient proof against the perils which beset him on returning to his own country after a winter's residence abroad.

THERE are few diseases which present so many points for inquiry as diphtheria, the modern scourge that seems to have taken the place of typhus and small-pox in civilised humanity. It spares neither young nor old; but it is the young who suffer most. It cruelly robs many a household of the flowers of the flock, and leaves behind it a lasting sorrow. Who does not know of families that have been thus desolated? Nay, the tale of victims to this modern Moloch includes many of the noblest of our own profession, more often the young and energetic, who succumb to disease contracted in discharge of duty. How grateful, then, will the world be for any clear indication of means for the mitigation of this scourge—for any light shed upon its etiology and its nature whereby the hands of Medicine may be strengthened in its endeavour to cope with the disease. For, in spite of many inquiries into epidemics of diphtheria, its etiology yet remains obscure. It is commonly believed to be a "filth disease," and there are many instances, both in town and village, where defects of drainage have been associated with outbreaks of diphtheria. Again, its propagation through infected milk has often been traced, and it was conjectured to be transmitted direct from the cow long before the notion of scarlatina being so transmitted occurred to the mind. That it cannot be generated *de novo* is in accordance with all that science has taught us concerning the origin of disease; yet many a practitioner could give examples which seem to leave no room for any other conclusion, whilst it is notorious that the line between tonsillitis and diphtheria is often very finely drawn.

The recent elaborate inquiry of Professor OERTEL of Munich, of which we have given an account in these columns, seems to have advanced our ideas upon the nature of the disease one step, although it leaves its etiology still in obscurity. It is true, doubtless, that the conclusions at which Professor OERTEL has arrived are much the same as those which are now generally held; but his great merit lies in this—namely, that he has given such conclusions that basis of fact which was heretofore lacking. We have therefore now a clearer insight into the nature of the morbid process, and can with greater confidence deal practically with the disease. The main outcome of Professor OERTEL's work is as follows. Diphtheria is a disease which is excited by a specific contagium. This contagium—by analogy rather than from absolute demonstration—is of bacterial nature. The implantation of the contagium upon a mucous membrane, usually that of the fauces, leads to changes commencing in the surface epithelium. It is inferred that the virus, probably a ptomaine, at once acts upon the mucous membrane, exciting inflammation, as shown by the leucocytal infiltration that occurs. The leucocytes themselves become attacked by the virus, and undergo remarkable changes which lead to their disintegration. These changes, which have been so exhaustively studied by Professor OERTEL, are marked by abnormal cleavage and chemical alteration of the cell-nuclei; they eventuate rapidly in the formation of areas of necrobiosis in the substance of the mucous membrane. The diphtheritic false membrane is therefore but part of a process that involves the whole mucosa. The lymphadenitis in connexion with the altered mucous tract is strictly specific, for the glands show the same changes as to necrobiosis as the membrane itself. Similar lesions, but less intense and numerous, occur in the intestine and the mesenteric glands, and also in the spleen; but in other viscera the lesions are referable to inflammatory reaction rather than to the essential phenomena of the disease. The study is a demonstration that diphtheria is at the outset a strictly local disease, but that in a few hours its poison spreads in the part first affected and in its vicinity; and in a few days it may enter the blood in such amount as to produce the most marked evidence of systemic

poisoning, which, if not causing death from its effect on the heart or other vital organs, may in due course produce peripheral neuritis, and perhaps myelitis.

Diphtheria, then, is not in the first instance a systemic poison; it is local. Just as in syphilis the attempt has been made to prevent the constitutional malady by excision of the local contagious sore, or in hydrophobia by excision of the bite-wound, so in diphtheria it might be thought that the disease could be arrested by dealing with the local manifestation thoroughly. This conception has been largely put into practice from the earliest days of the history of diphtheria, and the false membrane has been ruthlessly destroyed only to re-form. This period of the violent escharotic or other means of removal of the false membrane must be closed. Milder solvents are applicable; but, if Professor OERTEL be correct, the object they aim at is unattainable. The membrane may be dissolved and detached, but the disease is not cured; for the membrane is only the surface indication of a deep-seated and widespread change. Nevertheless, it is well to minimise the risk of the extension of the disease by contagion within the body by the free disinfection of the pharynx. As for other treatment—for we have no antidote for the diphtheritic poison,—reliance must be placed upon nutrition being maintained. How impotent such conclusions make us feel! Yet what is said of diphtheria is applicable to many diseases, perhaps all of the specific fevers; and, being true, it should make us endeavour all the more to unravel the mystery of their origin, so as to prevent the occurrence of plagues that we can do so little to stay. The "people perish from lack of knowledge," and in these diseases it is too often the young and promising who are snatched away, for they are less able to resist the virulent poison that destroys the cells which compose the body.

THE towns of Manchester and Leicester have been prominently identified with the Provident Dispensary system. In the former town, some thirteen years ago, there was originated a great movement to establish provident dispensaries on a large scale, and to reduce the amount of gratuitous relief at hospitals. Some eight or ten dispensaries have been created under the scheme, with about 16,242 paying members. The subscriptions of paying members amount to £3744, of which £2108, or little more than half, find their way into the hands of the medical officers. There is a decrease, according to the last year's report, of 203 of members belonging to clubs. Opinion is somewhat divided as to the success of this great experiment, which has been generously assisted by the subscriptions of the wealthy. The chairman of the recent annual meeting of the Manchester and Salford Dispensaries maintained that the system had gained a firm footing, but he admitted that the success was far short of what might be hoped for. Dr. STEWART, on the other hand, one of the most active promoters of the success of the Pendleton Branch Dispensary, wanted a committee appointed to inquire into the causes of what he considered the failure of the movement. But in this he did not succeed. The attempt to ascertain the proportion of persons at the medical charities who could afford to subscribe to a provident dispensary has been carried out more systematically in Manchester than in most places. The figures may interest our readers. We give the results of the investigation at the Royal Infirmary for ten years. There were found able to make such payments in 1878, 17 per cent.; in 1879, 14; in 1880-81-82, 12; in 1883, 13; in 1884, 12; in 1885, 9; in 1886-87, 8.

In Leicester, as our readers know, the management of the Provident Dispensary has been the subject of an acute and somewhat acrimonious controversy. The Dispensary has been established about twenty-five years, and has been patronised by the Duke of RUTLAND. There were 35,583 members in 1887, against 34,985 in 1886, or an increase of 598. Legacies were received to the amount of £380. The members contributed about £5000, and the subscribers about £500. In January, Mr. S. HARRIS, on behalf of his brothers and himself, generously presented a handsome new branch dispensary. This looks all very prosperous and creditable. But the Rev. Mr. ISAACS, with a deputation, appeared at the recent annual meeting, and repeated various criticisms on the management. The attendance at the meeting was large. Mr. ISAACS also presented a memorial from the leading practitioners of Leicester in support of his contention and in favour of some essential changes. Mr. ISAACS, however, did not carry his resolution. The report of the board was accepted. The appeal of the members to be represented on it was rejected, and so also was a resolution for a representative committee to investigate the management. We think this is to be regretted, though we must admit a want of definition and of proof about Mr. ISAACS' charges. The board assumed too much the air of men who were conducting a thriving concern. Mr. GEE maintained that the institution belonged to the governors, who had acquired a large freehold property, and had got "a large business," which they conducted without remuneration and for the benefit of the working population.

THE Engineer Inspector under the Public Health Act of Tasmania has submitted to the Chief Secretary a Memorandum on Quarantine. With the principles embodied in the document we so largely concur that we regret the more the tone of antagonism to the medical profession which runs through it. Mr. MAULT is convinced that quarantine is injurious to Australasia, just as it has been found injurious to Great Britain and to British India, and he is especially impressed with the serious loss to the community which resulted from the imposition of quarantine by the other Australasian colonies against arrivals from Tasmanian ports during a prevalence of small-pox at Launceston last year. Recalling the fact that quarantine restrictions, as opposed to the system of medical inspection, were decided on by the Sydney Sanitary Conference of 1884, he proceeds to imply that this result was due to the circumstance that this conference was composed exclusively of medical men, and that in this respect it differed from the conferences of Paris, Constantinople, Vienna, Washington, and Rome; and he urges that the whole subject should be reconsidered by a conference composed of lay as well as medical delegates. As regards one contention Mr. MAULT is in error, for although the Rome Conference nominally included lay members representing the diplomatic departments of their several Governments, yet the work that was done was exclusively the result of the labours of the medical delegates who met

as a Technical Commission; and in so far as that work can be looked upon as in any way tending towards the ultimate abandonment of quarantine, it was brought about by the arguments of medical men. Indeed, although we have cause to deplore the tenacity with which many European and other medical advisers cling to quarantine, we have no hesitation in saying that the discarding of that system, in a more or less complete form, amongst different communities, has mainly been brought about by medical reasoning; and that, in Europe at least, it is the ordinary public, and those representing them, who clamour most for the maintenance of a system which they blindly hope may save them from any considerable contribution towards effecting measures of sanitary improvement. We retain the firm belief that quarantine hinders sanitary progress; as applied to small-pox, we feel convinced that it retards the general adoption of the only true measure of prevention—namely, vaccination; and we would gladly see the question reopened in Australasia. We are also of opinion that any conference dealing with the question should, at some stage or other, include members representing the administrative departments of the several States; but we cannot look hopefully to the results of any gathering which may be the outcome of what amounts really to a charge against the medical profession that they have regard not to that which is practical, but to that only which accords with their "theoretical, medical, and etiological reasons." The subject is one which cannot be dealt with apart from medical and etiological knowledge, and it is to be hoped that with its growth such action will be taken as will best ensure the promotion of public health on sound and intelligent lines.

Annotations.

"Ne quid nimis."

THE ROYAL COLLEGE OF PHYSICIANS.

THE meeting of the Fellows of the College of Physicians on Monday last was an unusually large one, owing, no doubt, chiefly to the fact that it was the last occasion upon which Sir William Jenner would preside over the College which he has served so admirably, and also to the great and keen interest taken in the election of his successor. After the usual formal business Sir William delivered his annual address, in the course of which he alluded to the work done by the College during the past year, and contrasted the position of the College now with that which it occupied seven years ago, when he was first chosen President. In speaking of the action of the Colleges to obtain the power to grant degrees, he expressed the opinion that, if the movement had been supported more heartily, that power would by this time have been obtained; and he significantly added that the body which does eventually obtain the power will of necessity become the chief licensing body in the metropolis. Sir William Jenner paid a well-merited tribute to Sir H. Pitman, whose petition to the Privy Council contained, he said, the weightiest arguments in support of the scheme of the Colleges. He then proceeded to sketch the careers of the Fellows who had died during the past year—viz., Dr. J. B. Stewart, Mr. W. Jelly, Dr. R. G. Latham, Sir J. Dickson, Dr. John Jackson, Dr. W. C. Begley, Dr. A. Meadows, Dr. J. Popham, Dr. W. C. Adie, Dr. Francis, Dr. Arthur Farre, Dr. Wilson Fox, and Sir George Burrows. Sir William concluded by a few personal remarks, and his address, which had been listened to with marked attention, was received with loud and long-continued applause. On the motion of Sir Edward Sieveking, seconded by Sir A. Garrod, a hearty vote of thanks was passed to Sir W. Jenner for his address; and, on the suggestion of Sir H. Pitman, Sir William consented, to the great satisfaction of the Fellows, to allow the manuscript of his seven addresses delivered during his term of office to be bound and preserved in the College. The ballot for a new President was then taken, votes being recorded for Dr. Quain, Sir A. Clark, Dr. Wilks, Dr. G. Johnson, Sir E. Sieveking, Dr. Andrew, Sir W. Gull, and others. As no Fellow had received the requisite two-thirds majority, a second ballot was taken, when Sir A. Clark received 79 votes and Dr. Quain 71. The newly elected President expressed his thanks to the College for the unsolicited honour which had been so unexpectedly awarded him, and he was then duly inducted into office by the Senior Censor.

We regard with unfeigned satisfaction the result of the election. There can be no doubt whatever that in Sir Andrew Clark the College will possess a worthy successor to Sir W. Jenner, and one who will do much to maintain for the College the position which it has now assumed. Sir Andrew, who graduated M.D. of Aberdeen University in 1854, obtained the Fellowship of the College in 1858. He was Censor in 1882 and Senior Censor in 1883. In 1867 he delivered the Croonian Lectures, and in 1885 the Lumleian. He has also been a member of the Council of the College. His success in consulting practice is well known, as is also his long and loyal connexion with the London Hospital, of which he was an active member of the staff for thirty years, becoming a year or two ago consulting physician. As a clinical teacher he ranks very high, and the School of Medicine to which he was attached owes much to his indefatigable exertions in its service. In 1883–5 he was President of the Clinical Society of London, and in 1871 occupied the presidential chair of the Medical Society. In 1883 he had a baronetcy conferred upon him. We need say nothing upon his personal qualities, but we may look to him to display in the high office to which he has been chosen that calm judgment and earnestness in the promotion of the right which he has shown in the many good causes that he has promoted with so much zeal and energy.

THE METROPOLITAN BOARD OF WORKS AND SIR HENRY ROSCOE.

THE Metropolitan Board have made another plunge in their insane attempts to deal with the sewage of London at the present outfalls. They have appointed Sir Henry Roscoe, their consulting chemist, for a period of twelve months, in connexion with the deodorisation of the sewage and the purification of the Thames, on terms at which no one can cavil. Sir Henry Roscoe is one of the most distinguished scientific men, and his integrity is above all suspicion. It would therefore appear at first sight that the Board had not only adopted at last a prudent course, but had done all that could in reason be expected of them. But, unfortunately, either of these inferences would be entirely erroneous. It is perfectly clear that the Board do not intend to allow a free hand to the eminent chemist they have retained. They are still obstinately bent on retaining the present outfalls in spite of the strong warnings of Lord Bramwell's commission and a consensus of adverse opinion from the greatest medical and sanitary authorities. Sir Henry Roscoe may do something to abate the nuisance, but neither he nor anyone else can remove it as long as the present conditions remain. The present scientific advisers of the Board are skilful and zealous, and we believe they have done all in

their power to mitigate the foul nuisance of which London complains; but how could they, or how can Sir Henry Roscoe, destroy at the outfalls the sewage of the millions of London? The money hitherto spent in the attempt has been thrown away, and an additional enormous sum is now, we suppose, to follow it, unless Parliament awakens in time and suppresses the incubus which has caused and defended and is now maintaining the evil. That the old ignorance and the old obstinacy of the Board are still rampant was shown in the speech of Mr. W. R. Selway, reported in *The Times* of the 24th inst. We read with simple wonder his statement as to the condition of the Thames and the reports of the Royal Commissioners, and can only hope that he had not read or had forgotten those reports. The Board and its works are doomed, and will ere long die unregretted. We quite agree that the approaching Royal Commission cannot take cognisance of the treatment of London sewage; but we think it could, and should, inquire into the expenditure incurred in regard to it since the appointment of Lord Bramwell's Commission. The money spent in enormous sums has been public money, and the public has surely a right to know how that money has been bestowed. We commend the question to Lord Randolph Churchill, to whom it is not likely to be indifferent.

HEALTH IN THE PORT OF LONDON.

THE influence of efficient sanitary inspection in shipping in promoting the health of crews and passengers is well exemplified by some of the reports which we receive from certain of the ports of this country, and none have more interest in this respect than those periodically issued by Dr. Collingridge, the medical officer of health to the port of London. In the second half of last year no fewer than 10,587 vessels were inspected by the sanitary staff, and in only 831 of these was it necessary to order any such processes as cleansing &c. And it is still more satisfactory to learn that all the work ordered was carried out, no legal proceedings to enforce them being in any single case necessary. In one part of his report Dr. Collingridge protests against the action of the Plymouth port authority in not landing cases of small-pox on the arrival of an infected vessel in their district, the cases having been sent on to London. The practice appears most reprehensible, and it seems to us that if sanitary control by way of isolation is needed, it should be exercised at the first port of arrival. Cholera is no longer a source of immediate danger to our ports, and, as we have before announced, there is no longer any prohibition to import rags from Italy, the last European country infected. But, in adverting to this, Dr. Collingridge implies that such prohibitions are evaded by the rags being first sent to a port of some uninfected country, and thence despatched to our shores; and he says that it would be far more reasonable if, instead of these periodic prohibitions affecting only the countries known at the time to be infected, the disinfection of all rags entering the country were insisted on. Nothing could, indeed, be more reasonable than this, if pecuniary considerations do not stand in the way. But we have been under the impression that the cost of such a process, if carried out in a trustworthy way, would seriously hamper the rag trade, and hence the paper trade; and we learn with some surprise, and with much satisfaction, that this process, which would give a special safeguard against small-pox infection, could be carried out "at a nominal rate." We feel convinced that the port authority of London have only to make this clear to the Government in order to secure their support in making the practice a general one. As is well known, the London port is well equipped with an infectious hospital, which has again been of material service in preventing the spread of disease. Canal boats also come within the jurisdiction of the port authority, and no less than 721 of them were inspected last year. They were registered for a population of 2867, but only carried 1940. Indeed, the enforcement of the Act relating to this species of craft is doing a large amount of good; and we have Dr. Collingridge's testimony that it has already effected much improvement both physically and morally amongst the class inhabiting them.

MEDICOMANIA.

THE vagaries of fashion have been so many and remarkable that one is hardly surprised at any novelty which bears for the time the mark of social custom. Often but little influenced by reason either in their origin or their development, these creatures of the fancy may yet be redeemed, and even preserved in memory beyond the period of their transitory life, by some engaging trait in them or in the emotion which bred them. In such a case a certain regard naturally adheres to them, and if they should also, as they may, possess a deeper and more rational interest, their claim to the higher tribute of respect cannot but be allowed. In quite a different light must they be viewed when, following the twist of a morbid curiosity, they figure as deformed ideals of a false devotion. To this class belong too many modern usages, which illustrate the worship of the odd, the extreme, the unseemly, and revolting in taste, as judged by the simplest standards of true human feeling. The latest example that we know of is one which concerns our own profession. It consists in a mania for medical and surgical curiosities, and even operations, which is said to prevail in Parisian society. The scenes of the dead-house, the dissecting-room, and surgical theatre, all matters of purely professional interest, have, thanks, no doubt, to a diseased realism in the world of fiction, become the spectacle of the hour, the twin diversion with social small talk. It is a singular and not very worthy feature of the present day that various matters of the most serious character are apt to be discussed in general conversation in the lightest vein. In some circles religion is no longer sacred. It is hardly remarkable, therefore, that pain, sickness, sorrow, and death are to some who have not known them no more than means of pleasantry, nostrums for the cure of an idler's leisure. We have better hope of mankind than to believe that any such morbid flippancy will long escape its due censure at the hands of all true exponents of good taste and right feeling.

PRECAUTIONS AGAINST SMALL-POX AT HULL.

THE sanitary authorities of the borough of Hull are now engaged in taking energetic precautions against a possible outbreak of small-pox. Arrivals from Grimsby or from Sheffield may bring the disease, and it is determined to employ every means the law sanctions to prevent its spread. A few days ago a fishing boat, with a crew of five men on board, arrived in the Humber. There was one case of small-pox. The patient was immediately removed to the small-pox hospital, the fishing boat fumigated, and the healthy members of the crew bathed and their clothes disinfected. The address of each of the men was taken down, and every day for sixteen days a sanitary inspector will call to see if they still remain in good health. The same system has been carried out for the four or five other cases of small-pox that have recently been noticed at Hull. The patients were at once removed to the hospital, the premises disinfected, and the relatives and all persons known to have visited the patients treated as possible centres of disease. Consequently they are one and all carefully watched, and inquiries made every day; and should one of these suspected persons

sicken he will be removed to an isolation ward, where however, no small-pox exists. Thus the patient is not exposed to the risk of infection; but should his complaint ultimately prove to be small-pox, he will have been isolated from the community during the preliminary stages of the malady. There is no power to enforce the compulsory notification of infectious disease at Hull, but the medical practitioners of the town have shown the best disposition to assist in every respect the sanitary authorities. It should also be stated, to the credit of the borough, that the stipend of the medical officer of health is sufficient to render him independent of private practice. There is, further, a numerous staff of inspectors. The staff consists of one chief and two assistant inspectors, with diplomas from the Sanitary Institute, and they have under them no less than eleven ordinary inspectors. The population entrusted to these officials is estimated at 191,501.

DISHORNING CATTLE.

THE Society for the Prevention of Cruelty to Animals is sometimes to be congratulated on its failures almost as much as on its successes. This is at all events the light in which we are disposed to view the result of a case which was recently tried in the Sheriff's Court at Cupar, Fife, and in which the Society's agents brought a charge of cruelty against a cattle dealer who lately performed on an extensive scale the operation of dishorning oxen. As many of our readers are doubtless aware, this process consists in sawing off, at or near the root, the horns of cattle which are given to fighting with and goring one another. It is not, indeed, limited in its application to the case of vicious animals, but is with some breeders a matter of routine, and it is by them most extensively carried out on the principle that prevention is better than cure. The practice is unknown on the English side of the border, and is prevalent only in some of the midland counties of Scotland. Its advocates profess to believe that it causes but little pain, though one of them at the trial in question frankly admitted that he had not thought it necessary to study the structure of a horn. The whole evidence for the defence in this trial, indeed, partook largely of the robust ignorance exhibited by this witness. The defence was that of a practice long rooted in certain districts, and supported by prejudice and convenient custom. To anyone acquainted with the anatomy of a horn, the pain involved in sawing it through is obvious and indubitable. The reasons why this should be so were fully discussed by Professor Whalley of Edinburgh in the Sheriff's Court. He explained the nature of the vascular and sensitive bony core which traverses nearly the whole interior of the horn, and that of its equally tender investing membrane—points in structure which cannot but render the work of amputation a very painful proceeding. He likewise described in detail several alternative methods by which the purpose thus aimed at can be effectually attained. These, we may mention in passing, include the isolation of the combative animals, which usually number only some two or three in a herd; the practice universally approved in England and a great part of Scotland—that of fixing a ball, commonly of metal or wood, on the end of the horn, or of attaching a crossbar to both horns at their extremities; or, finally, that of "tipping," or removing with a saw, the sharp, but comparatively insensitive, horn tips. His argument and conclusions, seconded by the evidence of several practical and scientific farmers, were sufficient to prove the case of the prosecution, and to show that the practice of dishorning is as needless as it is painful. The state of the thirty-seven cattle operated on in this instance until the completion of the healing process was described by more than one witness, and constitutes in itself an important form of evidence. The stumps of the horns, as might have been expected, were suppurating, partly no doubt from the restlessness of the animals; and in one case the sinuses of the adjacent bone were opened into. Notwithstanding the facts adduced by the prosecution, however, the trial resulted in an acquittal; nor are we at a loss to explain this result, however singular it may appear at first sight. The fact of cruelty, we may say, was clearly proved, but the intention to be cruel was not. The operator appears to have performed with reasonable care and skill a customary though painful operation, and consequently was not held to be guilty of cruelty in a legal sense. The true remedy for this unnecessary custom is not, therefore, it would seem, to be sought in the prosecution of individuals, but in a vital alteration of the law for the protection of animals. The Prevention Society is nevertheless to be congratulated and commended for having, even in its defeat, raised a question of reform which we may rely upon the sense of the country and of Parliament to settle in a manner consistent with the claims of humanity.

FEVER IN LONDON.

DURING the week ending Friday, March 23rd, 93 patients were admitted into the hospitals of the Metropolitan Asylums Board, the number in the preceding week being 105. The cases of last week consisted of 82 persons suffering from scarlet fever and 11 from enteric fever, and there were remaining in the hospitals at its close 1259 patients. It is noteworthy that no case of small-pox was admitted last week; if the disease is to have any special prevalence this spring, this is the time of year when its tendency to spread should be exhibited, and its behaviour in the next few weeks will doubtless be watched by the hospital authorities with some anxiety. At a meeting of the Metropolitan Asylums Board on Saturday, Mr. Scovell, chairman of the Ambulance Committee, presented the annual report of that branch of the hospital service, and stated that the land service had, during the last six months of 1887, removed fever patients from their homes at the rate of 29·1 per diem, and the steamers had run 5802 miles during the year. The work thrown on the ambulance service has evidently been enormous, and its successful operations are largely due to the ability of the chairman of the committee. By the resignation of Sir Edmund Currie the Managers lose one of their most able colleagues, and a gentleman to whom the metropolis is greatly indebted for some of the best work the Board has performed; he is succeeded by Mr. J. G. Talbot, M.P., who was proposed by Surgeon-General Bostock, C.B.

"IMITATIVE TETANUS."

DR. VICENTE G. GUANCHEZ, writing in the *Revista Científica de la Universidad Central de Venezuela*, records a case of "neurosis tetanica," or "imitative tetanus," which occurred in a native of Caracas, a young man who had always enjoyed good health. The patient began to complain of pain in the calves of his legs which caused him considerable difficulty in walking. There was no fever, but the pain increased, and some contraction of the flexor muscles of the leg occurred, rendering the man incapable of walking. Indeed, on the second day of the attack he could not turn in bed without a good deal of pain. He was unable to sleep, and suffered from mental anxiety. It was then elicited that his brother, who lived at a little distance, was suffering from tetanus, and that the patient, who went frequently to see him, had appeared to be greatly affected at the sight of his brother's spasmodic attacks, and had declared that he himself would die of the same malady. Dr. Guánchez, however, attributed the pains to rheumatism, which was common enough at the season when this occurred. He treated the man with anodyne liniments and jaborandi

internally. No effect was produced, as intense rigidity of the legs, simulating ankylosis, came on, the patient obtaining no sleep whatever and the pain being still very severe. A purgative was prescribed, but the trunk muscles became affected and clonic spasms began to show themselves. Bromide, chloral, narcein, and codeia were prescribed, but none of these arrested the rapid progress of the affection. The convulsions increased, opisthotonos and lastly trismus occurred, and the man died on the sixth day. In this case the mode of invasion was different from that usual in true tetanus, which commences by affecting the muscles of the face and chest; again, there were no remissions, as in ordinary tetanus, but the disease progressed steadily and more rapidly than is usual in tetanus. As to treatment, Dr. Guánchez, who has had some experience of ordinary tetanus, has found mercury and opium sometimes successful and in one notable case the cure appeared to be due to the constant and careful administration of curare.

SALARIES OF MEDICAL OFFICERS AND THE GUARDIANS OF HONITON.

THE guardians of Honiton have passed an amendment providing for the reduction of the salaries of their medical officers 10 per cent., and, in the event of their refusal to accept the reduction, for the appointment of others to fill their places. This amendment was carried by a narrow majority of ten to eight. It is only fair to say that the mover of this amendment, Mr. James Broom, had given previous notice of it, and that the medical officers and the Local Government Board had been communicated with, with a view to getting their consent. The medical officers declined in a decided tone, and pointed out with much force that the depression in trade and agriculture increased pauperism and threw extra work on the medical officers. They objected with equal force that though they were the only officers who had expenses in connexion with their duties, and the expenses were greatly in excess of former years, they were the only officers whose salary it was proposed to reduce. The Local Government Board took the same view of the case, and withheld its consent unless the medical officers agreed, or it could be shown that there was a substantial reduction in the work. The reasonableness of the medical charges was well shown by several of the guardians, but the false economists carried their point. We have much sympathy with depressed farmers, but they make a great mistake when they lower the already too low salaries of their medical officers at a time when their work is increased. We can only hope that the Local Government Board will be firm in seeing justice done, and that no medical men will assist the guardians out of their dilemma by offering themselves for the offices which are to be vacated by no fault of their holders.

FATAL RESULT OF MORPHIA-TAKING.

WE have repeatedly had occasion to direct the attention of our readers to the prevalence of the habit of self-treatment by means of drugs. Doubly dangerous as the practice is when carried out by uninstructed persons at the instance of nostrum-sellers, we are reminded by a recent disaster due to this cause that even the possession of technical knowledge does not always qualify a practitioner to deal with his own ailments. On Monday week at Southsea an inquest was held on the body of a medical man believed to have died from the effects of an overdose of morphia administered by himself. The deceased had been in the habit of taking opiates originally to procure sleep, but afterwards, as the habit grew upon him, at irregular periods. A fortnight ago, rising from bed in the afternoon, but apparently well and cheerful, he was found an hour and a half later in a state of coma with symptoms of opium poisoning, which proved fatal in spite of restorative measures. Such is the sad and simple history elicited at the coroner's inquest. It comes as an unwelcome but useful warning that drugs of dangerous character are not matters for merely routine administration. Much less are they, in whatever popular form, a natural part of the household stock, though apparently assumed to be so by not a few thrifty householders. Two things are necessary for satisfactory treatment: a knowledge of the body, and its state for the time being; and a knowledge of the means of cure, with its possibilities of action. A mere smattering of one or both will not suffice. Such theoretical insight as is conveyed by books, or popular medical newspapers, is worse than useless, since it is necessarily partial and misleading. Nothing short of a clear perception of the nature of the disease under observation, and its appropriate remedy, with an understanding of the just measure in which the latter must be used in given circumstances, is sufficient to guarantee a safe or a satisfactory issue. For these reasons a fully trained practitioner, other than the patient, is obviously the only natural guide as to treatment.

THE "WAKLEY" CONVALESCENT HOME.

IT will be remembered that the late Editor of THE LANCET devised his pleasant residence at Longcross, near Chertsea, for the benefit of convalescents and in connexion with University College Hospital. We are able to announce that the Home will be opened about the middle of April. There will not be at the beginning accommodation for more than six patients, four men and two boys. The neighbourhood is delightfully rural and retired, on the very edge of Chobham Common. Perhaps our existing convalescent homes are too exclusively located at the seaside, which does not suit all patients. We trust that other kindly men will follow the late Dr. Wakley's example, and that such places may be greatly multiplied. We have been favoured with a copy of the rules and the diet scale, which are satisfactory.

TUBERCULOSIS IN CATTLE AND IN MAN.

OUR Glasgow correspondent writes:—There has long been an impression abroad that the acknowledged prevalence of tuberculosis among cattle, and the frequent occurrence of the disease among milk-giving cows on dairy farms, constituted a public danger of some indefinite kind; but the hope has been indulged that this danger was, after all, more apparent than real. Certainly, the existence of tuberculosis in cattle and other animals is not usually regarded by authorities as by any means a common cause of tuberculosis in man. Some very startling and disquieting statements on the subject appear, however, in a report issued by Principal M'Call, of Glasgow Veterinary College, on "Tuberculosis in Cattle, and how to deal with it," intended to "open the eyes of the authorities and the public to the gravity of the position in which they are placed." He gives a general account of the disease and of the means whereby it has been experimentally propagated among the lower animals, adopting formally the bacillary theory of its origin and the identity of the bovine and human varieties, and asks, "Is it not but reasonable to conclude that bovine tuberculosis is frequently transmitted to the human subject by eating the flesh and drinking the milk of tuberculous cows? It is to be hoped that thorough boiling of the flesh destroys the vitality of the bacilli; but we are not warranted in believing that roasting the flesh, as usually practised, will have that effect, and, as milk is seldom boiled before being partaken of, it is clear that the milk of a tuberculous animal is unfit for human or other animal food, and dangerous to life." Principal

M'Call thinks the disease among animals is alarmingly on the increase, and unless vigorous repressive measures are adopted it will become more widespread. "It is clearly the duty of all local authorities to do all in their power to induce the Government to include tuberculosis in cattle among the other scheduled diseases, and to grant compensation, as in contagious pleuro-pneumonia. I regret to have to confess that there are few towns in the three kingdoms, if any, where there are as many tuberculous and emaciated animals publicly exhibited and sold in open market as in Glasgow, and the reason, I apprehend, is that the persons who traffic in them are not sufficiently punished by confiscation of carcases, and that it pays them to feed the inhabitants of Glasgow and the west of Scotland on the abominable carrion." These are somewhat alarming statements to come from one in Principal M'Call's position, and they add one more terror to the milk-can, in which we have been already taught to dread the presence of scarlet fever and typhoid.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

IT is very gratifying to see the list of stewards for the approaching biennial festival of the Royal Medical Benevolent College to be held at the Métropole Hotel on Tuesday, April 17th. It would have been unfortunate if the Lord Mayor's kindness in undertaking to preside had not been responded to by the profession. The list of stewards is the best response, prior to the dinner, which we can have. It is not only the numbers on the list, but the representative character of the names from every part of the kingdom and every branch of the profession, which speak so well for the success of the festival. Nor will our profession be left alone to support the Lord Mayor. The sheriffs and the under sheriffs will kindly act as stewards, and so also will the Attorney-General, Sir Richard Webster, Q.C., M.P. Such support is not more a compliment to the Lord Mayor than to the profession. We urge our readers to honour the occasion by their liberality.

NUMEROUS CASES OF SCARLET FEVER IN THE SAME HOUSE.

IT is clear that we are not yet done with scarlet fever, at least in London. It is a point of the greatest moment to prevent the spread of the disease from one member of a family to the rest. Generally speaking, in a well-appointed house and with an intelligent family, a second case should not occur. Some great feats of prevention are recorded in a short account of "Results of the effort to prevent the spread of Infectious Disease" by the Paddington and Marylebone District Nursing Association. The system was pursued with success even in cases where the entire family occupied only one room. In four instances one child only (of several) had scarlet fever, and, being too unwell to be moved, was nursed through the illness to convalescence in the same apartment with the rest of the family. The details are given as an appendix to a little work we have already noticed, being an "Address on the Duties and Conduct of Nurses," by Dr. Richardson, of the Massachusetts General Hospital, and published by Simpkin, Marshall, and Co. If such success can be attained in the straitened homes of the poor by strict care and antiseptic precautions, the question arises, Why should two or three, or even five or six, cases occur in the houses of the well-to-do? It is impossible to impress some families, and even some nurses, with the importance of the several precautions to be observed with regard to the infectious excretions and scales, and for disinfecting them. The trouble is too great, and has to be extended over too long a period for their effort. They go on very carefully for a few days or a week or two, and then they relax their rules, and another and another case occurs, and the whole system is discredited. It cannot be too clearly stated, however, that with care—and the absence of care here amounts to something like crime—it is possible, and even easy, to prevent one case infecting another. It is obvious that two cases will often occur simultaneously and through a common outside cause, beyond the control of doctor or nurse—milk or clothing; but the prevention of the spread of infection from the sick to healthy persons should not be difficult, and when it is not attained somebody should feel responsible. It is not for us to insist on all details, but a few such are extremely important. A surplice should be worn by medical attendants and nurses. This should be worn in the sick room, covering the dress. The hands and mouth should be washed after or on leaving the room. Of course, all the ordinary methods of preventing the diffusion of desquamated scales, and of disinfecting them and the excreta, should be taken with a disease so like a plague, and involving so many grave lesions. Our profession never appears to greater advantage than when it sets an example of extreme care and trouble in the use of precautions.

ACUTE GASTRIC CATARRH.

CATARRH of the stomach is perhaps more frequent in infancy than catarrh of any other mucous membrane; it attacks the feeble, the anæmic, the convalescent, and the sufferer from any form of fever, whilst the healthy babe is not exempt. The gastric juice is altered in quality and diminished in quantity; the digestion is consequently impaired, whilst the muscular coat may be paralysed or too irritable. The treatment should consist more in the avoidance of certain articles than in the administration of drugs. Small quantities of iced water, seltzer, or other effervescing water relieve the thirst; and Jacobi recommends greatly diluted muriatic acid in the proportion of one part to three or ten thousand. Milk should not be given if there be much mucus ejected from the stomach; indeed, it is well to withhold milk entirely for a day or two, and give only whey or some mucilaginous or farinaceous liquid.

THE FIRE AT THE BAQUET THEATRE.

ANOTHER calamitous theatre fire has sent a thrill of horror through Europe. This time, indeed, the story of the death-struggle is garnished with details of brutality such as are only too likely to be true to fact, but can in any case hardly be avouched by any adequate testimony. The spectators on such an occasion are not likely to be sufficiently composed to make accurate observations, and their detailed narratives must be discounted accordingly. But the lesson of these holocausts is not to be read in the frantic excesses of men maddened by fear, be the evidence upon this point what it may. It is the simple and obvious lesson of precaution: a lesson which, indeed, it is difficult to miss, but which somehow it seems still more difficult to learn. From the narrative which comes from Oporto, it would seem that the Portuguese authorities have been wholly heedless of what has occurred in other countries. It may at least be hoped that the warning thundered at their own doors will not be equally thrown away. In the meantime it is interesting to inquire what is being done nearer home to provide against a recurrence in our midst of such a mishap. Some satisfaction may be gleaned from the decision already announced that the Metropolitan Board of Works is to be relieved of its functions. But who will take them up? Are they to be added to the multifarious duties at present discharged by the Home Office, or is the Lord Chamberlain to be entrusted with a general supervision? There is much to be said for either course, and yet perhaps neither is absolutely the best. The great danger is that the duties will come to be discharged in a perfunctory way. It is a danger that is always

serious when precautions have to be taken against the occurrence of a contingent and long-deferred event. Popular opinion is in such a case of no value whatever. The stimulus necessary to set it in action is wanting. The emergency is precisely of the kind for which *drill* is the remedy. Men can be drilled to anything, but when the effect to be eventually attained is so remote, as in this instance, from the means by which it is to be produced, nothing but drill avails to keep the means in active use and efficient condition. We shall look, then, with much more interest to the details than to the main outlines of the Government scheme, already so long deferred, and shall be more disposed to rely upon methods in this matter than on men.

ALLEGED MILK INFECTION AND SCARLATINA.

MR. HENRY ARMSTRONG has prepared a very careful report on an outbreak of scarlatina, in the Jesmond district of Newcastle-on-Tyne, which is apparently associated with the use of milk from a certain dairy. The outbreak was sudden and limited in duration, 19 cases in 16 households occurring between January 27th and February 6th; and of the 19 attacks 17 occurred in persons having their milk from the same dairy. The milk came from Gosforth; but amongst 50 families in that district taking the same supply no cases were heard of; there were also 169 households in Newcastle who had their milk from the same dairy, and who remained unaffected. Suspicion, therefore, seems at first sight to free the dairy itself, and this notwithstanding the fact that some scarlatina appears to have existed in the house of one of the dairy workers some few months before the outbreak. The cows are also declared to have been healthy, one only having had chapped teats; but on this point we can hardly, in the present state of our knowledge, accept any definite assurances. Coming next to the distribution of the milk, there was an incidental purchase of additional supplies in both the Newcastle milk-walks, and although inquiry as to these incidental sources of supply led to no results inculpating them, the very occurrence complicates the story materially. However the milk became infected, the infection must have been a limited one both in point of time and in amount. Both milk-walks were attacked, one to the extent of 5½ and the other to 9 per cent. of households supplied. But whilst the actual source of infection remains undiscovered, the report forms, by reason of its careful preparation and argumentation, a valuable addition to the subject of disease-distribution through the agency of milk services.

NURSING AT THE PRESENT DAY.

THE Princess Christian has done good service in a worthy cause by placing before the general public a description of the life and training of a hospital nurse and the necessary objects aimed at by the British Nurses' Association. Notwithstanding that much has already been written on this subject, we are well aware that there still is need for such advocacy as that of the Royal authoress. The narrative of a nurse's duties, their variety, their frequent difficulty and constant responsibility, the danger from disease implied in their discharge, the reason for what appears to many their superfluous detail, not least their healthy action in educating the sympathetic better self of womanhood and the ready cheerfulness with which they are undertaken, will not suffer by frequent repetition in the public ear. That self-denial is involved in a calling of this kind is certainly true, but no true woman will consider this in itself a drawback. Unless the limits of reasonable endurance be exceeded, or the asceticism of nervous enthusiasts be allowed to colour with its morbid hue the aspect of such work, there must be in it something wholesomely engaging and refreshing to a generous nature. The life of a nurse is not a martyrdom. It has, no doubt, its hardships, and even its serious perils. It has also its hopes and its satisfaction. In its duties, whether they imply for the time being the seeming drudgery of probation or the vigilant labours of experience, there is always present the great interest of reality, the centre about which life revolves. There is, therefore, in this useful sphere of effort much to attract those whom health and leisure qualify to enter it. We may now very shortly direct attention to the purpose of the British Nurses' Association. Founded on the maxim that "union is strength," it aims at uniting by a common bond of mutual assistance the fifteen thousand women at present employed as nurses throughout the kingdom. Its object is therefore a thoroughly natural one, and, judiciously carried out in detail, must recommend itself as worthy of universal suppot.

THE AIR OF EDINBURGH THEATRES.

AN interesting account has been given by Mr. Cosmo J. Burton of the amount of carbonic acid and organic matter in the Theatre Royal and Royal Lyceum Theatre in Edinburgh. At the time of the experiments the theatres were by no means full; nevertheless, the temperature was from ten to fifteen degrees above that recorded immediately before the houses were opened, while carbonic acid was multiplied from three to five times. Mr. Burton remarks that the vitiation of the air proceeds with extraordinary rapidity at first, but the rate of change soon decreases, till towards the end of the performance the air becomes little or no worse, and, indeed, in a few instances it appeared to slightly improve. The atmosphere of all parts of the theatre was not equally vitiated; the air of the gallery was considerably worse than that of any other part of the house; the amphitheatre, dress circle, and pit did not come in the same order as to degree of impurity in the experiments, but the pit was always worse than the dress circle. The late Dr. Parkes stated that headache and vertigo are produced when the amount of carbonic acid in the air of respiration is not more than from fifteen to thirty volumes per 10,000, and our experience of some theatres leads us to suspect that Mr. Burton's results are not special to Edinburgh. The facts as to all theatres ought to be known; for the public had much better lose an evening's enjoyment than submit to the enforced inhalation of a polluted atmosphere for a number of hours.

LOCAL FACIAL SWEATING.

AN investigation of the various observations made on local facial sweating will show that many instances are attended with increased redness and temperature in the area in which the secretion is augmented, and in other cases there are no such accompaniments. It is important to establish this distinction between cases attended with a modification of the capillary circulation and those in which the vaso-motor perturbation is wanting, the nerves controlling sweating being alone affected. In 1876 Ostroumow and Luchsinger proved the independence of vaso-motor and perspiratory phenomena in their experiments on the sciatic nerve of the cat. MM. Vulpian and Raymond think that the secretory fibres of the sweat glands of the face accompany the vertebral nerve, or else emanate from the bulbar filaments of the sympathetic. The cervical sympathetic is assumed to be paralysed if there be hyperæmia, hyperthermia, hypersecretion, and myosis. When there is hypersecretion with a dilated pupil the explanation must be different. This group of symptoms may be referred to an irritative lesion either of the trunk of the sympathetic or of a centre in the medulla oblongata. Cases of medullary and cerebral lesion have, indeed, been recorded in which vaso-motor and sudatory troubles existed

unilaterally. M. Raymond refers to a case of cerebral hæmorrhage in which there was bilateral myosis, with facial sweating only on the left (the paralysed) side. There exists in the spinal cord an anatomical system intermediate between the motor and sensory zones, which adjoin the ascending fibres occupying the cervix cornu posterioris and the deep part of the lateral columns—a region of mixed fibres enclosing nerve tubules of sensory, motor, and vaso-motor order. Lesions of these tracts are supposed to be the effective agents in the production of the visceral crises and secretory troubles of tabes dorsalis.

HEALTH OF THE GERMAN EMPEROR.

WE are in a position to state that a few days ago Sir Morell Mackenzie removed from the laryngo-tracheal canal of the Emperor Frederick a large piece of cartilage which had evidently fallen down from the larynx. This separation of cartilage, though of course possible in cancer of the larynx, is a very rare phenomenon; indeed, we know of no similar one recorded in medical literature. There is, moreover, in the Emperor Frederick's case no extension of growth towards the cannula. Generally in cases of cancer, as we need hardly remind our readers, soon after tracheotomy has been performed vegetations appear round the cannula. Nothing of this sort has occurred in this case. The process seems to be always of a necrotic nature. If a swelling forms it does not extend, and soon shows a tendency to slough away. We are also informed that, owing to the improvement in the condition of the Emperor, Sir Morell Mackenzie will probably return to London in a week or ten days.

LIVERPOOL AND THE THREATENED INVASION OF SMALL-POX.

OUR Liverpool correspondent writes:—Small-pox having broken out in epidemic form in Sheffield, Manchester, and other Lancashire and Yorkshire towns, there has been naturally some anxiety as to its probable appearance in this city, seeing the frequent, almost hourly, communication between it and the places named. The owners of common lodging-houses, and the emigration and district inspectors, are instructed to report any doubtful cases of sickness at once, and these are immediately visited by the medical officer of health or his deputy. Since the case imported from Sheffield occurred, already reported, no further case has been discovered in the city, but a seaman who arrived from Santander was found to be suffering from small-pox, and was removed to the Park-hill hospital about ten days ago. Last week the steamship *Benita*, from Barcelona, had also a case of small-pox on board in the person of the second officer, who was also removed to hospital. There is not at present any reason to suspect the existence of small-pox in the city, thanks to the vigorous measures adopted.

EFFECT OF COOKING ON THE DIGESTIBILITY OF STARCH.

IN a graduation dissertation for the degree of M.D. in the Military Medical Academy of St. Petersburg, Dr. N. Butiagin gives an account of some experiments he has been carrying out with the view of determining the effect of cooking on the digestibility of starchy foods. He found that the activity of the saliva does not differ much amongst healthy persons, but that when people are badly nourished and weak, and especially when in addition to this they are suffering from disease of any kind, their saliva has a very perceptibly diminished power of dissolving starch. When starchy substances are subjected to prolonged cooking they become more easily digestible, and in this way compensation can be provided for the inactivity of the saliva of weakly persons. Thus, rice and peas were found to require three hours' cooking in order to render them as easily digested in the saliva of a badly nourished, nervous, hysterical woman (which had previously been found to possess only 88 per cent. of the normal activity), as they were with a single hour's cooking by the saliva of healthy persons; and generally it was found that in the case of weakly or diseased persons starchy food must be cooked twice or thrice as long as in the case of healthy persons in order that it might be equally acted upon. Again, when starch has been cooked for a long time there is less difference between the effect of healthy and unhealthy saliva upon it; this is specially remarkable in the case of millet—which after one hour's cooking showed a difference of 12·89 per cent. in favour of the saliva of healthy as against that of diseased persons, but after three hours' cooking a difference of 5·77 per cent. only.

THE PROPOSED TAX ON "PLEASURE" HORSES.

THE Chancellor of the Exchequer, in introducing the Budget in the House of Commons on Monday evening last, announced that one of the proposed new taxes would be the imposition of £1 on "pleasure" horses. He admitted "the difficulty of exactly deciding what was and what was not a pleasure horse." We trust, however, the right hon. gentleman will see his way to exempting horses used by medical practitioners in the discharge of their professional duties; but from his remark that "the tax may be heavy on the doctor or the clergyman, and I regret it more in their case than in its application to the great owners of horses," &c., and his hope that "the committee would find it possible to maintain the duty of £1 upon all horses which could be broadly described as belonging to the well-to-do," we fear he contemplates taxing the medical practitioner for his horse as well as his carriage, which is a little hard, seeing that they are both necessaries in his work, and but seldom used for pleasure.

THE GROWTH OF EUROPEAN POPULATIONS.

THE *Statistical Abstract*, which has just been issued, contains, among other highly interesting matter, some very striking vital statistics relating to the principal European States. These range over a period of ten years past, and give the numbers of recorded births, deaths, and marriages. The most striking feature about them is that they disclose a gradual tendency in the death-rate to overtake the birth-rate. This is most marked in the case of France. Ten years ago there were in France births in such number that their ratio to deaths was 1·16 to 1. In the interval the annual births have diminished by upwards of 40,000, while the annual tale of deaths has increased, and consequently the present ratio of births to deaths is only 1·06 to 1; and if the next quinquennium should exhibit the same features as the past decade the population of France will in 1893 have become actually retrogressive. The phenomenon is in no sense peculiar to France. In less degree, Russia, Germany, Belgium, Austria, and to a fractional extent the United Kingdom also, exhibit the same character, and in only six out of sixteen countries does the number of births exceed the number of deaths by so large a proportion as 1½ to 1. The names of these six countries will be read with interest; they are, taking them in the order of fecundity and beginning with the most prolific, Norway, Denmark, Sweden, Roumania, Great Britain, and Holland. So it would seem that, as of yore, it is still the "populous north" which "pours the multitudes from her frozen loins." Broad facts like these are full of significance—indeed they are over-full of significance; so many factors go to make up the gross result that it is impos-

sible to put the finger upon any one and say "this is the dominant factor." But at least it is certain that, upon the whole, happy and wholesome conditions of life are what promote the growth of population, and that, with certain important reservations, of two communities belonging to the same stock and standing on the same plane of civilisation, the more favourably circumstanced is the more expansive. The application of this rule would greatly tend to modify existing views. Under this aspect the objects of international admiration and envy would not be the great military empires, which are one and all gradually losing the regenerative faculty, but those quiet little states which, standing more or less apart from the scramble of European politics, are nevertheless able to secure to their citizens such a sufficient measure of all those personal advantages which constitute the end of government that they are obviously destined to make the future their own by virtue of a superior tenacity of life.

THE REGISTRATION OF ARCHITECTS.

WE have received from Mr. Wm. White, F.S.A., a copy of a petition which has been presented to the House of Commons against the second reading of the Architects' Registration Bill. The petition shows the extreme difficulties which stand in the way of legislation at the present time, but we find no sufficient argument against the principle of registration, which is needed more in the interest of the public than of the architects' profession. It is more than likely that the Bill will not pass, but if a select committee be granted to inquire into the whole subject a definite advance would be made. This would be the most satisfactory termination of the present controversy.

SMALL-POX IN WORKHOUSES.

THE recent epidemic of small-pox has again shown the mischief of receiving cases of that disease into workhouses, but the guardians of the Stockport Union want to try the experiment again. It is quite true that a member of their own body reminded them that a severe prevalence in Oliver-street had been brought about by the same practice. The medical officer is altogether opposed to the proposal; and one guardian, whilst voting for it on the ground that the matter had better be settled once for all, said he believed it to be an improper arrangement. The proposal now is to provide on the workhouse site a hospital for twenty-eight beds, and opposition to a scheme which it is believed may spread more disease than it can check is being actively set on foot. It seems a great pity that some proper decision cannot be come to as to this recurring difficulty of bringing together small-pox patients in populous places.

FOREIGN UNIVERSITY INTELLIGENCE.

Giessen.—Dr. Wilbrand, Professor of Hygiene and Medical Jurisprudence, is about to retire, after having lectured for fifty years.

Leyden.—Dr. Siegenbeek van Heukelom has been appointed to the chair of Pathological Anatomy and Forensic Medicine.

Munich.—Dr. E. Gräber has qualified as *privat docent* in Medicine.

Vienna.—The names brought forward for the vacant chair of Anatomy are (1) Prof. Schwalbe of Strasburg, (2) Prof. Zuckerkandl of Graz, and (3) Prof. Rabl of Prague.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following eminent foreign medical and scientific men are announced:—Dr. Carl Hermann Schildbach, *docent* in Orthopædics in Leipsic.—Professor Franz Xaver von Gietl, formerly Director of the Medical Clinic in Munich and Physician to Kings Maximilian and Ludwig II., at the age of eighty-four.—Dr. Hippolyte Blot, Secretary of the French Association Générale des Médecins.

SMALL-POX IN HUDDERSFIELD.

So far, success has attended the measures which have been adopted in Huddersfield to stay the spread of small-pox. Since the beginning of the year five undoubted cases and four doubtful ones have had to be dealt with, and in the doubtful cases measures of isolation were taken which rendered it unnecessary to expose the sick to the infection of the small-pox wards. The existence of separate isolation rooms for such a purpose at the borough infectious hospital has thus proved of great value. Such rooms form, indeed, an essential part of a properly constituted infectious hospital.

DR. CONSTANTIN JAMES died in Paris on March 12th, at the age of seventy-five. Dr. James was author of several valuable works, including Studies in Hydrotherapy, and a treatise on Mineral Waters. He was Chevalier of the Legion of Honour, and the possessor of numerous other honours, also member of several learned societies both of his own and of other countries.

AT a special meeting of the Board of Governors of St. Mary's Hospital, London, held on Friday, March 23rd, Dr. Scanes Spicer was elected physician to the Department for Diseases of the Throat.

DR. CAYLEY, of Middlesex Hospital, and Dr. Payne, of St. Thomas's Hospital, have been appointed by the College of Physicians examiners for the Murchison scholarship.

MR. WILLIAM JAPP SINCLAIR, M.A., M.D., C.M., has been elected to the Professorship of Obstetrics at Owens College, in succession to Professor Cullingworth, resigned.

Pharmacology and Therapeutics.

PERMANGANATE OF POTASH AS AN EMMENAGOGUE.

DR. L'VOFF, writing in a Moscow medical journal on the emmenagogue action of permanganate of potash as described by Drs. Ringer and Murrell in 1883, states that during the four years which have elapsed since the publication of the English physicians' paper he has treated some 200 cases with permanganate. His results are thus summarised in five classes of cases: 1. Thirty-two cases of otherwise healthy girls who suffered from dysmenorrhœa with diminished flux, no assignable cause being made out. Here pills containing permanagate and extract of pulsatilla were ordered for a week or ten days before the period, with excellent results. 2. Seventeen cases where the involution of the uterus after childbirth had been excessive, or where atrophy of the uterus and the ovaries had occurred during lengthened puerperal affections, especially during parametritis. These patients took the pills regularly for from three to six months. Improvement in the quantity of the flux generally commenced in from four to six weeks in young women, and in from three to four months in older subjects. 3. Sixty-two cases where pelvic peritonitis occurred after labour. Here a good result was obtained in the majority of the cases, but in a few no effect was observed. 4. Sixty-five cases of young married barren women, in whom gonorrhœal gonococci were mostly to be found, and many of whom suffered from affections of the tubes or ovaries. In this group of cases the results obtained from permanganate were not very striking—indeed in many of them it was useless. 5. Eleven cases of early appearance of the change of life (from thirty-five to forty years of age), an atrophic con-

dition of the uterus being always recognisable. Here the permanganate proved useless.

DEEP INJECTIONS OF CREASOTE IN PHTHISIS.

Dr. Rosenbusch gives an account in a Polish medical journal (*Przeglad Lekarski*, Feb. 4th and 11th, 1888) of the cases of nine phthisical patients whom he treated by injecting creasote into the tissue of the lung. The results he obtained were excellent. The injections, which were given at intervals of two or three days, caused the cough almost to disappear and the quantity of sputum to diminish. In those cases which were not very far advanced the patients gained flesh, the dyspnœa and sweats ceased, the body weight increased, and frequently spots which had been dull on percussion cleared up. The temperature decreased from five to eight hours after the injections, the fall continuing at first for ten or twelve hours, a permanently normal temperature being subsequently registered. The injections were made into the affected portion of the lung, which was usually, of course, the apex. The instrument employed was an ordinary Pravaz syringe, with a needle from six to eight centimetres in length. About eight minims (half a syringeful) of a 3 per cent. solution of creasote in almond oil was injected in each of two spots, the piston of the syringe being pressed down slowly. The patient was told not to breathe deeply, and after the injection to lie quite still for a few minutes. When the needle was not inserted deeply enough, some lancinating pain was apt to be produced by the irritation of the pleura. This, however, did not last long. No hæmorrhage was ever observed after the injection, though in the case of one patient, who was subject to hæmoptysis, a slight colouring of the sputum was observed for a short time. If the injections were made into a cavity, or into one of the large bronchi, the patients said they could smell creasote when they coughed, and this substance could be detected in the sputum by chemical means. Of course great care was taken to perform the operations under aseptic conditions, the skin, the needle, and the syringe being previously carefully washed with an antiseptic. The creasote used was the *creasotum e bitumine fagi*, or beech creasote. The writer promises a subsequent communication on the effect of these injections on the number of Koch's bacilli.

STRYCHNINE IN ALCHOLISM.

Dr. T. J. Korona speaks strongly in favour of the value of hypodermic injections of strychnine in most forms of chronic alcoholism. From five to ten milligrammes were administered daily in divided doses for three or four days, and a mixture containing ethereal tincture of iron and nux vomica, prescribed for internal use. Under this treatment the neuralgic pains in the waist and calf of the leg, shaking of the hands, and the tabetic gait ceased entirely, but no diminution in the size of the enlarged liver could be detected. In acute alcoholism strychnine appeared to have but little effect. In ten of eleven cases the patients stated that after three or four injections, *vodka*, the spirit to which they were addicted, became repugnant to them. In cases where no symptoms had been produced by drink, strychnine had much less effect than in cases of a much more serious description.

THE ESTIMATION OF NITRITES.

Mr. T. Cuthbert Day communicated to the Chemical Society at the last meeting, March 15th, a new method of estimating nitrites, either alone or in presence of nitrates and chlorides. The method consists in saturating the solution containing the nitrite with solid ammonium chloride, boiling the mixture in a suitable apparatus, after removal of the air by carbonic anhydride, and collecting and measuring the nitrogen evolved; interaction takes place according to the equation $NO_2K + NH_4Cl = KCl + 2OH_2 + N_2$; hence the quantity of nitrite present in the substance under analysis is calculated from half the volume of nitrogen obtained.

PRESENTATIONS. — Dr. Andrew Milroy has been presented with a silver gilt and cut crystal dessert service by the members of the Saltcoats Ambulance Class, as a mark of their appreciation of his services as instructor during the past session.—Dr. J. W. Shaw of Partick has been presented with a case of surgical instruments in recognition of his services as tutor of the Dumbarton Ambulance Classes.—Dr. Higgins, who has gratuitously trained in ambulance work a class of the Birkenhead borough police force, has just been presented with a silver-mounted marmalade jar, bearing an appropriate inscription, as a small mark of gratitude and appreciation of his services as their instructor.

PROFESSOR OERTEL ON DIPHTHERIA.[1]

IV.

HAVING completed his exhaustive survey of the histological changes met with in the various tissues and organs in diphtheria, Professor Oertel proceeds in his monograph to discuss in greater detail the cell phenomena which form the most characteristic and constant feature of these lesions. There is no need for our present purpose to follow him in this section of the subject, which, although of much interest to the advanced histologist, so abounds in technicalities concerning the intimate constitution of the cell and its nucleus as to make any mere abstract of it impossible. Suffice it to say that he differentiates the modes in which nuclear disintegration occurs, and contrasts the processes leading to necrobiosis with those concerned in repair, or those which are the normal expression of changes due to age. He infers that in the production of necrobiotic areas, and the subsequent chemical changes which the disintegrated nuclei undergo, there is evidence of the operation upon the cells of a poisonous agent, influencing the cells with which it is brought into contact. The same holds for the peculiar hyaline transformation of connective-tissue elements that is met with, especially in the blood-vessels of the affected organs. He next devotes a chapter to the development of the diphtheritic false membrane, upon which, as he points out, the attention of pathologists has for the most part been concentrated. He shows that, whereas it had come to be considered that the false membrane was of inflammatory origin, due, it was supposed, to a specific irritant, yet Heubner's researches pointed to some necessary antecedent condition of the circulation in the affected mucous membrane, so that the formation of false membrane might conceivably be secondary to general infection of the system. Now, according to the present researches of Oertel, the false membrane is to be regarded as part and parcel of the necrobiotic process that occurs in many organs—in the depth of the pharyngeal and tonsillar tissues, in lymphatic glands &c.; and the differentiation of a "membrane" to be due to the accident of position—viz., on the free surface of a mucous membrane. He shows clearly that in its earlier stages the epithelial and leucocytal elements disintegrate to form the substratum of the false membrane just as like cell disintegration produces the deeper-seated "necrobiotic foci." Indeed, for the most part the false membrane is due to the extension of such foci formed beneath the epithelial layer. Another chapter deals with the regeneration of diphtheritic tissues, based upon the study of two cases where death occurred in the one from cardiac paralysis eighteen days after severe pharyngeal and laryngeal diphtheria, in the other from paralysis of respiratory muscles some five or six weeks after the subsidence of the local pharyngeal manifestations. These cases showed that the false membrane is removed by purulent infiltration; the necrobiotic products and hyaline masses by liquefaction and absorption; whilst there is a new formation of epithelium and connective tissue from germ cells or fibroblasts. The descriptive portion of the work is closed by a chapter dealing with bacteriological researches of interest, because Professor Oertel himself twenty years ago published facts in support of diphtheria being a bacterial disease, and also because of Loeffler's more recent inquiry with cultivations and inoculation experiments upon a particular bacillus met with in the false membranes. In the earliest-formed membranes many varieties of microbe can be isolated; but practically there are two chief kinds—chain-forming cocci (streptococcus) and rod-shaped bacteria with rounded extremities (bacilli). In the septic form of the disease the cocci were especially abundant; but in a case of laryngeal and tracheal diphtheria the secretion from a tracheotomy wound yielded a great preponderance of bacteria. In a diphtherial membrane of twelve hours' date micrococci abounded mostly on the surface, whilst in the fibrinous meshwork the bacilli, often in colonies, preponderated. In another specimen of twenty-four hours' date the upper margin was full of cocci, with a few rods between them, extending a short distance into the substance of the membrane. In a third specimen of membrane, detached after

[1] See antea, pp. 389, 439, 540.

six days, there was a like admixture of the microbes, but the specimen had suffered from the local applications used. In the sections of tissues and organs these organisms were met with almost solely in the mucous membranes, nor did they penetrate mostly to any great depth; they did not occur in necrobiotic foci, and it is especially noticeable that they were not found in any of the sections of the kidneys examined. Their absence from the kidney is in marked contrast with Oertel's former results, and he suggests that in his previous examinations (1865-71) he was dealing with septic cases, which prevailed then more than they do now. He attributes, perhaps with reason, this disappearance of septic infection to the adoption of disinfecting measures, and the rejection of the old vigorous escharotic treatment and forcible detachment of membrane that formerly prevailed.

The facts thus obtained are then collated for the discussion of the great question of the Pathogenesis of Epidemic Diphtheria that forms the second part of the monograph. The several points are dealt with in turn. It is shown that the essential and characteristic lesions, as distinct from the concomitant and sequential, are those of cell change—the necrobiotic processes which are initiated in the leucocytes and larger round cells that so early appear in the affected tissue. These necrobiotic areas are met with in the epithelium of the respiratory mucous membrane; in the substance of that membrane itself; in the tonsils; in the mucous membrane of the fauces, uvula, epiglottis, larynx, and trachea; in the cervical, submaxillary, and bronchial glands; in the follicular and agminate glands of the intestine; in the mesenteric glands and spleen. But in their extent they vary in these different situations, apparently in proportion to the amount and intensity, as well as to the continuance of the operation, of the virus that induces the change. Everything points to the infectiveness of the process, which extends from one part to another in the substance of an organ, or by the lymph stream, or by the blood, as in the case of the spleen, the disintegrated products furnishing the virus. The conclusion then, that diphtheria is primarily a local disease seems clearly to follow, for although it has been objected that the intestinal lesions are evidence of general blood infection, yet the amount of change in the intestine points to a diminished virulence there, and the date of these lesions shows that they follow the pharyngeal affection, and may possibly be due to the swallowing of infected products from the mouth and pharynx. This does not preclude the occasional though rare occurrence of a diphtheria starting primarily from the stomach. As to the lungs, the entire absence in them of any of the characteristic lesions shows that a primary infection of the system through these organs has in no way been proved. Diphtheria is, then, a disease in which there is a direct infection, by the immediate action of the contagium with the epithelium of a mucous membrane, whence the disease spreads, and in a variable time becomes a general infective or systemic disease. The nature of the virus is less clear. It manifestly acts upon cells, causing their disintegration and death, and their infected particles cause the disease to extend to other cells; whilst it seems as if leucocytes and phagocytes convey the virus into tissues, lymph, and blood. The action of the virus on the bloodvessels is seen in the hyaline changes induced in them, in the alteration in their walls that causes them to readily rupture, producing hæmorrhage. And the unequal distribution of these vascular lesions depends probably upon the greater or less length of time during which the circulation in them allows the infected blood to be in contact with their walls. The secondary inflammatory and degenerative processes—as in the lungs, heart, liver, kidneys, and in the nerve tissues, central and peripheral—occur in varying degrees, and must be due to the blood infection, the amount of virus thus brought into contact with these organs being insufficient to lead to necrobiosis. Of course, there is great room for variation in such results and their duration upon this hypothesis, which admits of every degree of concentration of the virus in the blood, as well as of vital resistance on the part of individual organs. It may, indeed, take long for the infective virulence to be quite exhausted. That the virus is due to the presence of bacterial organisms is highly probable; but that it is the product of their metabolism—a ptomaine—is also most likely, since the microbes themselves are almost wholly confined to the surface, whereas the action of the virus is widespread and deep. It must be admitted, however, that the specific diphtherial microorganism has not been isolated with certainty; and the differences between man and animals render experimental proof in this matter difficult.

In a few pages Professor Oertel alludes to the clinical and therapeutical bearings of these considerations. In the first place, the false membrane must no longer be regarded as the first pathological and pathognomonic sign of diphtheritic infection, and it is not surprising that energetic measures towards its removal are followed by fresh formation, since the morbid process is going on in the mucous membrane. Still, local treatment should aim at thorough disinfection of the buccal and pharyngeal cavities, which will at least prevent secondary infection of the stomach and intestines, and this is best effected by the frequent use of disinfectant spray. How far the disease is spreading may be judged by the degree of lymphatic gland swelling; and the degree of fever may bear upon the extent of general infection. When we know more of the influence of drugs upon ptomaines, in preventing their formation or hastening their conversion into innocuous materials, we shall be better able to prescribe general remedies—such as quinine, mercury, or arsenic—with confidence; but meanwhile the chief hope lies in prophylaxis and the maintenance of the body in a state of nutrition, so that its cell elements may be able to resist successfully, and annul, the virus against which they have to contend. That this is possible is evident from what we know respecting other poisons and individual capacities of resistance.

In conclusion, Professor Oertel points out that the whole subject, from the first migration of leucocytes into the infected epithelium to the formation of necrobiotic foci in the spleen, proves the important part played by cells in the disease. It shows, he considers, that we must still go back to the cell theory if we would explain morbid action, and he puts forward his work as a contribution to Virchow's doctrine of cellular pathology, which is by no means so effete as some declare.

THE MEDICAL, MEDICAL STUDENTS', AND DENTISTS' REGISTERS.

THESE Registers, which, we understand, are in much demand, were published on the 21st inst., and copies may now be had from Messrs. Spottiswoode and Co., the Medical Council's publishers.

The Medical Register, corrected and revised throughout from all available data, has had prefixed to it some additional preliminary matter of interest in the form of statistics and tables. From these statistics it appears that, whereas the number registered in 1877 was but 940, the number registered last year was 1531, showing an increase of 591. While the total number in the Register for 1876—the first year in which any such data as are now presented were ascertained—was 22,200, the number on the present Register is 27,246, showing an increase of 5046, whereof about 66 per cent. were registered in London, 19 in Edinburgh, and 16 in Dublin. The number of pages in the present Register is 1172—a large increase from the 335-paged volume that sufficed for 1850, the 548 pages for 1870, and the 598 pages for 1876.

The Medical Students' Register has prefixed to it similar tables of statistics, showing, *inter alia*, for each division of the United Kingdom, the respective numbers registered in 1887 as having passed the several recognised examinations, and the numbers registered at each place of medical study.

The Dentists' Register appears to have been subjected to a most thorough and searching investigation, a process already rendered absolutely necessary owing to carelessness or neglect on the part of registered dentists. Soon after midsummer, inquiry letters, under Sec. 12 of the Dentists Act, were sent to all persons on the Register; and, three months later, nearly a thousand registered second inquiry letters had to be sent, as prescribed in the cited section, to those who had not answered the first inquiry. By this heavy labour an unprecedented amount of error has been disclosed and corrected. From the tables and statistics contained in the preliminary matter of the register, it appears that the unqualified dentists were, in 1879, 4806, or 91 per cent. of the whole, while the dental licentiates were 483; but in the present Register

the licentiates have increased to 977, and the unqualified persons have diminished to 3889, or 79 per cent. of the total, thus showing clearly a decrease of 12 per cent.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Toxteth Park Urban District.—In this suburb of Liverpool the annual death-rate for 1887 was 12·5 per 1000 living. The deaths from zymotic causes included—measles 12, scarlet fever 8, diphtheria 3, and typhoid 4; and the number of cases which came under notice included—scarlet fever 105, measles 81, and diphtheria 12, the apparent increase in numbers being probably in part due to an increased willingness on the part of medical men voluntarily to notify such cases. It is stated by Dr. G. W. Steeves that the scheme for the erection of a small isolation hospital on the Richmond Lodge Estate will soon be completed, and that in the meantime such measures of disinfection and isolation as are practicable are being taken. Amongst the improvements effected during the year is an extension of the practice of drawing all drinking water from the mains direct instead of from cisterns liable to become uncleanly from deposit and otherwise.

Ashton-in-Makerfield Urban District.—In his fourteenth annual report on this district Mr. Hannah draws attention to some of the more prominent steps that have been adopted during his tenure of office to improve the health of the people of his district. These have included the adoption of codes of modern bye-laws as to new buildings, nuisances, common lodging-houses, and slaughter-houses; the almost entire abolition of the old midden-privy in favour of a pail-closet system; the adoption of a main-drainage system with irrigation; the provision of a water supply to the populous localities; substantial progress in the laying out and proper formation of new streets; and provision for isolating cases of infectious diseases. These several matters are calculated to have an important influence on health, and they afford evidence that in others of a like sort the authority is desirous of making progress. During 1887 the general death-rate on a population of 11,163 was 18·9 per 1000; that for zymotic diseases was only 1·0; but children under one year of age died at the rate of 157 per 1000 registered births.

Watford Urban District.—Diphtheria still clings to this town. Last year the deaths were 7 in number, as opposed to 15 in 1886. One recrudescence appears to have been due to importation from Leavesden, where the disease was prevalent. Afterwards the house was cleansed and disinfected, but on the sick person's room being again occupied, after two months' interval, the new occupant contracted the disease. This is a by no means exceptional occurrence, many somewhat similar ones having gone to show the persistence of the poison and its capability to attach itself to rooms and houses as well as to persons. Dr. Brett has not traced any relation of cause and effect between sewer-air nuisance and diphtheria. In one road a sewer ventilator caused nuisance, but no diphtheria appeared. After it had been closed some years, 4 fatal attacks occurred within 20 feet of it. The case is interesting, as showing that the true causes of infection are not always those which are most apparent. In this instance school infection was probable. The annual death-rate for 1887 was 13·5 per 1000 on a population somewhat exceeding 12,000.

Braintree Rural District.—A limited prevalence of enteric fever is reported from this district as having been associated with the use of polluted brook water. A change in the supply was at once effected. Rivenhall End has also during the year been provided with a copious supply of wholesome water. Other good sanitary work has been carried out in the district, and care is taken as to systematic inspection of all the registered dairies; the visits paid to these establishments having resulted in some marked improvements in their drainage, ventilation, and lighting. Mr. C. E. Abbott gives the general death-rate for 1887 as 17·9, and the zymotic rate as 1·7 per 1000.

Cardiff Rural District.—Dr. R. Prichard was only appointed to this district in August last, but it is evident from his report that he has utilised the intervening period in a way which must conduce to the improvement of the sanitary area now under his supervision. The occurrences of infectious diseases are carefully recorded, and the inquiries they have led to have been used to secure the abatement of conditions favouring their occurrence and tending generally to ill-health. Progress is much needed in some parts of the district as to water supply and drainage, the places in question and their special wants being prominently indicated. As to infantile diarrhœa, Dr. Prichard is of opinion that, after giving due consideration to insanitary circumstances, a main cause is the excessive feeding of children, whenever they cry, on milk which, containing as it does a slowly digestible form of albumen, tends really by overfeeding to prevent digestion and to cause starvation. The death-rate for 1887 was 17·2 per 1000.

Kettering Urban District.—The death-rate in this district during the past seven years has varied between 14 per 1000 in 1881 and 18 in 1882; last year the rate slightly exceeded 15. In referring to infectious diseases, Mr. Dryland records the death from virulent small-pox of a patient who had been once "vaccinated," but from whose arm the lymph was washed directly after the operation had been performed; he also states that the new infectious hospital has been completed, and that a comfortable ambulance has been provided. There are still polluted wells in the district, and the use of one of these was during the year associated with severe typhoid fever. A scarcity in the public service is also likely to be a hindrance in securing the abandonment of supplies subject to the risk of pollution. The need for adequate flushing of sewers and drains is already felt, and this notwithstanding efforts to deal with it; so also the water supply, which formerly was constant, is now an intermitting one.

Withington Urban District.—On an estimated population of 22,000 this district had last year a death-rate of 13·1 per 1000, a rate that has not been much exceeded for some eight years past; children under one year have only died at a rate of some 90 per 1000 registered births, and the zymotic rate has been 0·8 per 1000. Scarlet fever has been somewhat prevalent, and a number of cases have been removed to the Monsall Fever Hospital for isolation. The medical practitioners of the district have notified cases of infectious diseases, and the facilities which they have thus afforded are courteously acknowledged by Dr. Railton. The scavenging arrangements appear to be well organised, and the streams have been cleansed; but the Chorlton brook still has an offensive character, especially during hot weather.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5903 births and 3792 deaths were registered during the week ending March 24th. The annual rate of mortality in these towns, which had been 23·3 and 20·3 per 1000 in the preceding two weeks, rose again last week to 21·1. During the first twelve weeks of the current quarter the death-rate in these towns averaged 22·1 per 1000, and was 2·0 below the mean rate in the corresponding periods of the ten years 1878-87. The lowest rates in these towns last week were 14·8 in Huddersfield, 15·4 in Cardiff, 16·3 in Halifax, and 16·8 in Hull. The rates ranged upwards in the other towns to 26·3 in Preston, 28·1 in Blackburn, 30·4 in Manchester, and 37·6 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 442 and 363 in the previous two weeks, further declined last week to 319; a lower number than in any previous week of this year; they included 118 from whooping-cough, 50 from measles, 43 from scarlet fever, 30 from diphtheria, 27 from "fever" (principally enteric), 25 from small-pox, and 26 from diarrhœa. No death from any of these zymotic diseases was registered last week in Portsmouth, Newcastle-upon-Tyne, or Halifax; whereas they caused the highest death-rates in Sheffield and Plymouth. The greatest mortality from whooping-cough occurred in London and Wolverhampton; from measles in Bradford and Plymouth; from scarlet fever in Oldham and Huddersfield; and from "fever" in Nottingham and Leicester. The 30 deaths from diphtheria in the twenty-eight towns included 17 in London, 2 in Norwich, 2 in Birmingham,

and 2 in Oldham. Small-pox caused 17 deaths in Sheffield, 2 in Blackburn, 2 in Hull, 1 in Bristol, 1 in Nottingham, 1 in Manchester, and 1 in Sunderland, but not one in London or in any of the twenty other large provincial towns. The Metropolitan Asylum Hospital Ships contained 15 small-pox patients at the end of last week, against 14 and 17 on the preceding two Saturdays; the Highgate Small-pox Hospital contained no patient at the end of the week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 1187 on Saturday last, against numbers declining steadily in the preceding sixteen weeks from 2764 to 1239; the 88 cases admitted to these hospitals during the week showed a further decline from recent weekly numbers. The causes of 90, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Oldham, Portsmouth, Brighton, and in three other smaller towns; the largest proportions of uncertified deaths were registered in Sheffield, Hull, Blackburn, and Bradford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 24·2 and 21·0 per 1000 in the preceding two weeks, rose again to 22·2 in the week ending March 24th; this rate exceeded by 1·1 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 14·4 and 15·4 in Perth and Leith, to 23·6 in Paisley and 27·2 in Glasgow. The 562 deaths in the eight towns showed an increase of 31 upon the number in the previous week, and included 21 which were referred to whooping-cough, 9 to measles, 9 to scarlet fever, 6 to diarrhœa, 6 to diphtheria, 5 to "fever," and not one to small-pox; in all, 56 deaths resulted from these principal zymotic diseases, against 76 and 47 in the preceding two weeks. These 56 deaths were equal to an annual rate of 2·2 per 1000, which was 0·4 above the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 29 and 16 in the preceding two weeks, rose again last week to 21, of which 14 occurred in Glasgow and 5 in Edinburgh. The 9 deaths from measles corresponded with the number in the previous week, and included 6 in Glasgow and 2 in Edinburgh. The fatal cases of scarlet fever, which had been but 5 and 3 in the previous two weeks, rose last week to 9, of which 6 were returned in Glasgow. The 6 deaths from diphtheria included 2 in Dundee, and exceeded the number in the previous week by 1. Two of the 5 deaths from "fever" occurred in Glasgow; and the 6 deaths attributed to diarrhœa showed a decline from recent weekly numbers. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 159 and 137 in the preceding two weeks, were again 137 last week, and were 9 below the number returned in the corresponding week of last year. The causes of 81, or more than 14 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 34·0, 33·1, and 29·0 per 1000 in the preceding three weeks, was 29·7 in the week ending March 24th. During the first twelve weeks of the current quarter the death-rate in the city averaged 31·6 per 1000, the mean rate during the same period being 22·1 in London and 22·0 in Edinburgh. The 275 deaths in Dublin showed an increase of 3 upon the number in the previous week; they included 5 from measles, 4 from scarlet fever, 4 from whooping-cough, 4 from "fever," 3 from diarrhœa, and not one from small-pox or from diphtheria. Thus the deaths from these principal zymotic diseases, which had been 25 and 19 in the preceding two weeks, were 20 last week; they were equal to an annual rate of 3·0 per 1000, the rate from the same diseases being 1·9 in London and 2·2 in Edinburgh. The fatal cases of measles corresponded with the number in the previous week, while those of scarlet fever and diarrhœa showed a slight increase; the deaths from "fever," which had been 3 and 8 in the previous two weeks, declined again last week to 4. The deaths of infants exceeded the number in any recent week, while those of elderly persons showed a further decline. Five inquest cases and 1 death from violence were registered; and 62, or nearly a third, of the deaths occurred in public institutions. The causes of 25, or nearly 13 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

ANOREXIA NERVOSA.

To the Editors of THE LANCET.

SIRS,—Mr. de Berdt Hovell offers Sir W. Gull a double congratulation one on recovery from his late illness, the other on his rejection of the word "hysteria." This Mr. Hovell calls a restoration of the *mens sana in corpore sano*. He then adds, "I congratulate him on setting his colleagues at Guy's the example of mental conviction and moral resolution in departing from their traditions as far as they relate to the Addisonian heresy of uterine irritation in connexion with the hysteric hypothesis." By Sir W. Gull's colleagues Mr. Hovell means more especially myself, since for several years I have been denounced in his different essays and pamphlets as holding contrary views to his own (whatever they may be) in reference to the so-called hysterical states. It is in vain that I have attempted to show him that he is in error as regards my opinions, for again and again he repeats the misstatements. The word "hysteria" seems to act on his excito-motor system in some remarkable manner, like that of a red rag on a bull, and he loses all power of inhibition. I do not, therefore, write in the vain hope or wish to make the slightest impression upon him, but for your readers I should like first of all to point to your leader on Sir W. Gull's case, in which you refer to the latter's very clever address at Oxford, in which he objected to the use of the term "hysteria" in its etymological sense. This, according to your own showing, was years before the date at which Mr. Hovell says he converted him. As regards myself, I have always been in accord with my colleague, for in my published lecture on Hysteria anyone may read as follows: "I do not consider the disease peculiar to women, and therefore of necessity uterine, but, owing to women's organisation, the complaint is far more common in the female sex." I then illustrate this by examples of hysteria in men and in boys. I subsequently quote, with approval, Paget (with whom Mr. Hovell also quarrels), to this effect: "In the defective ovarian and uterine function of certain patients some see the centre and chief substance of the whole disease—a very mischievous fallacy." I afterwards refer to the great truths contained in Sydenham's chapter on hysteria, in which he says: "It must be confessed that women are much more inclined to this disease than men, not because the womb is more faulty than any other region of the body, but for reasons to be shown hereafter." And again: "This disease seizes many more women than men because kind nature has bestowed on them a more delicate and fine habit of body, &c." In spite of all this plain speaking, Mr. Hovell is still pleased to reiterate the statement that I teach the Addisonian doctrine that the pathology of hysteria is true in the etymological sense, and has a uterine basis.

It is now many years since Mr. Hovell attacked every writer on hysteria, and received a strong impression that Addison and his successors taught that this disease was essentially uterine. This has left a scar on his brain which no effort of mine can eradicate; for he now pursues the present generation of Guy's teachers, and has allowed his fancy to see the abhorred theory in a passage he read in Fagge's work on Medicine edited by Dr. Pye-Smith. Fagge, in speaking of the simulation of disease by hysterical women, quotes Watson, to the effect that this can be carried to the extent of a girl so imitating the symptoms of stone in the bladder that the deception was not detected until the surgeon had prepared her for operation. The method by which this was converted into the following requires nothing less than the genius of a Hovell. "We have seen," he says, "death from the shock of grief attributed to wilfulness and obstinacy, and a patient with a morbid impression as to her bladder tied up before the student class in the position of lithotomy as a curative proceeding." The first of these statements refers to me, and the second (a pure invention) to Dr. Fagge. But the most

amusing misstatement of Mr. Hovell touches the very gist and purport of his letter, and that is to congratulate Sir W. Gull on his rejection of the word "hysteric" and the application of the term "nervous" to "cases of the same kind described by Sir W. Gull in 1873 as anorexia hysterica." Now, any of your readers (and them alone I am addressing) may see, if they refer to the Transactions of the Clinical Society, that Sir W. Gull used the same term then as now, and not the one attributed to him. Mr. Hovell can, therefore, no longer congratulate him on the resumption of his *mens sana*, for to this supposed change of opinion the expression can only apply, for everyone knows that Sir W. Gull's late illness was purely bodily. The only real points of interest in Mr. Hovell's communication are first, the psychological problem how anyone in so short a letter can make so many misstatements; and, secondly, the attitude in which a writer places himself who can say that the perversion of the *ego* spoken of in hysteria "might with greater force be applied to the profession."—I am, Sirs, your obedient servant,

March, 1888. SAMUEL WILKS.

CONSTRUCTION OF HOSPITALS FOR INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—The above subject, discussed in your last issue and in a leading article of the 17th inst., is of sufficient importance to warrant anyone possessing experience of the same to contribute therefrom as a guide for others who find themselves called upon to deal with this question. For many years at Manchester I had the management and administration of one of the largest of our fever hospitals in this country, constructed partly of permanent buildings and partly of temporary structures. Here, at Leicester, I have the superintendence of a hospital which is also of a mixed character. As one of a deputation officially deputed to visit various of these institutions throughout the country, and from a very extended acquaintance of like hospitals on the Continent and in America, I venture to think I am qualified to give an opinion as to the advantages or otherwise of temporary buildings for hospital purposes, and, with your permission, I will briefly summarise what I have to say.

1. As to economy. When, as too often happens, a temporary hospital is erected to meet some sudden outbreak of infectious disease, the cost is found to be equal to and often exceeds that which would have been incurred by the quiet erection of a properly built permanent hospital. Even when they are erected deliberately and not under pressure, if they are constructed properly, with all necessary fittings in the shape of closets, hot and cold water supply, bath-rooms, proper accommodation for staff, laundry, disinfection, &c., the first outlay is found to be but little below that which some of our best-built hospitals have cost. But if it is considered that the duration of these buildings is strictly limited, and that they will require replacing before many years have passed, together with a constant heavy outlay for repairs, all the supposed economy vanishes.

2. As to efficiency. In our English climate, through the winter and colder months of the year, temporary structures, such as marquees, canvas huts, and the like, cannot be used. In the better-built wooden erections, such as we had in Manchester, or partly iron and partly wood, such as we have here, *there is always a difficulty* in maintaining a proper and equable temperature, and if the wards are to be kept warm in all their parts, fires must be supplemented with hot-water pipes running round the walls. Again, in the summer, the same wards are with difficulty kept at a bearable temperature, for owing to the thinness of the walls and roof, the sun's rays soon penetrate, and the same thing again gives rise to very sudden rises and falls of temperature. At Manchester all the wooden erections have been replaced by permanent buildings, partly on this account, though chiefly because they had become dilapidated and decayed after a tenure of existence of less than ten years. In Leicester the administrative block is built of brick, whilst the wards are of corrugated iron outside lined with wood. In these the same difficulties with the temperature are met with, though to a less degree; but there is no doubt that the external casing of iron considerably lengthens their term of existence. In the large Hôpital Mariniers, in the southern suburbs of Paris, hastily erected to accommodate 300 patients at the outbreak of cholera there in 1884, the building was constructed in skeleton framework of wood, and this was filled in with four inches and a half of brickwork only. In the hot weather even this became so unendurable that mats or screens were hung on the walls outside to temper the sun's heat and keep them a little cool. Probably Copenhagen can show one of the most perfectly equipped and constructed fever hospitals in Europe. Every building is constructed in the best manner possible in brick and stone, with all facilities for heating and cooling the wards. A disadvantage attaching to iron casings is the noise often arising in heavy storms of rain and hail, not an unimportant item when we consider the class of cases under treatment here.

3. Concerning diseases for which the same building may be required. As all know, the prevalence of any particular zymotic varies from time to time; the chief of these in this country which are treated in these hospitals are small-pox, scarlatina, typhoid, typhus, and diphtheria. It is essential that a ward which has at one time been occupied by any of these, shall be able to be purified and rendered safe for the treatment of any other. To do this with the utmost readiness and safety, I maintain that the more "permanently" a hospital is built the easier can this be done. Wards should be built with as few angles and projections as possible, the walls and ceilings of the hardest and most impermeable cement or other material, and the floors likewise as non-absorbent as possible. Then absolute and complete disinfection and cleansing can be accomplished, and wards safely used for any disease, even after being occupied by the most infectious of them—i.e., small-pox and scarlet fever. This I assert from actual experience, having successively had the same wards filled with cases of these diseases. One other important consideration should not be overlooked: that, seeing these hospitals are used by patients who come voluntarily, though often against their own private inclinations, every endeavour should be made to render these hospitals comfortable and attractive, and not, as has often happened, ugly and uninviting in appearance, and wretched in many of their internal arrangements.

Finally, I would submit that the principles which should guide any authority in erecting an infectious hospital are shortly as follows:—The site should be conveniently near, but not in the midst of the community it serves; the hospital should be of such size as to accommodate the average wants of that community, and should be built in the best and most approved methods now adopted in hospital construction; but there should be an ample spare area around it on which true "temporary" wards could be erected if required to meet an epidemic, and in which convalescents could be drafted from other wards kept for acute cases.

All must respect the opinions of one who ranks so high in the sanitary world as Dr. B. W. Richardson; but I think he has struck a false note when he says, "It is easy to support an old system," and "to sustain the past on the past." It is because the experience of the past has found these temporary hospitals more or less failures, costly financially, wanting in efficiency, and tending to repel the people at large from using them, that they are now to be condemned. The reform lies in building no more such structures, and I would emphatically endorse the conclusions of your article—that, "speaking generally, the disadvantages attaching to temporary hospitals are so many and so great that the counterbalancing advantages would have to be set forth in a very convincing manner before the view that temporary structures are in any form essential to success could be regarded as proven."

I am, Sirs, yours obediently,

HENRY TOMKINS, M.D., B.Sc.,
Leicester, March 26th, 1888. Medical Officer of Health.

To the Editors of THE LANCET.

SIRS,—The proposed hospital for infectious diseases in Nottingham has become a matter of more than local interest, and as the question may possibly affect the policy of other towns, I think it is important that the point at issue should be clearly indicated.

If we look at the annual cost of such a hospital (and that is the form in which the ratepayers have to regard it), the items in order of importance may be stated thus: 1. Working expenses, including salaries of nurses and servants.

This, the largest item, varies in proportion to the work which is done, and is common to all hospitals, temporary or permanent. 2. Interest on outlay upon site, drainage, paths, gas and water supply, administrative block, disinfecting apparatus, laundry, mortuary, ambulance, &c.; also furnishing and equipment of wards. These expenses also are irrespective of the mode of construction of the ward blocks. 3. Interest on outlay for actual ward buildings. Now, it is only upon this third and smallest item that the opponents of permanent buildings claim to show economy. For the sake of a present saving of perhaps one-half *of the expense under this heading only*, they urge us to adopt unsightly wards, difficult to warm, and requiring renewal at the same cost in a few years. Wooden structures have as further drawbacks the impracticability of thorough disinfection and the necessity of an increasing annual outlay upon repairs, to which I might add risk of destruction by fire.

Dr. Richardson bases his advocacy of iron structures mainly upon three points, viz.—economy, portability, and capability of disinfection by heat. The economy, I venture to think, is comparatively small as regards first cost, and vanishes when the "temporary" character begins to assert itself. Meanwhile we incur the risk of impairing the efficiency of the whole by rendering the hospital uncomfortable and unattractive to the patients, who resort to it as much in the interest of the public safety as of their own. Removal from place to place is beside the mark—in Nottingham at all events. An excellent site has been found, and no one acquainted with the local conditions and with fever hospitals will be likely to entertain any apprehension of removal becoming necessary. There remains the question of disinfection by heat. The plans adopted by the Health Committee, after careful consideration of all recent advances in hospital construction, include provision for rendering the internal surfaces of the wards non-absorbent. The walls and floors being so constructed that nothing can penetrate below the surface, all infective or other matter can be removed with ease and certainty by washing, and mercuric chloride or other potent disinfectant can be applied if need be. What then becomes of the necessity for disinfection by heat? Whatever method of construction were adopted, it would be equally necessary to have in constant readiness separate accommodation for at least small-pox, scarlet fever, and diphtheria. It is not enough to have in stock the materials for such provision at a week's notice. So far from proposing to erect permanent hospitals capable of dealing with "great epidemics," our present scheme is based merely upon the ordinary requirements of isolation in non-epidemic years, such as 1887, during which year, nevertheless, we had in hospital a daily average of thirty scarlet fever patients, and at one time sixty. If any of the diseases mentioned became epidemic, further accommodation would be needed; but it is in the prevention rather than the cure of epidemics that hospital isolation is most important.

It is alleged as an argument against permanent hospitals for infectious diseases that hospital construction is a progressive science, and that the best arrangements now known will in the course of time become obsolete. Why this consideration should be urged against such hospitals only, I am at a loss to understand. In regard to any building, public or private, it seems evident that if at a small additional primary cost it can be rendered more comfortable, more attractive, and more useful, and if, further, this fractional increase in first cost is more than covered by subsequent saving in repairs and ultimate reconstruction, then the prospect of the building remaining at the end of a century in sound and serviceable condition is far from being a real drawback. If by that time, or before it, a revolution has taken place in hospital construction, the economists of the future will find little difficulty in demolishing these inconveniently permanent wards. Apart from the question of cost, can it be seriously urged as an argument in favour of temporary hospitals that they will soon become uninhabitable, and so enforce a reconsideration of their arrangements?

After considerable experience in the practical administration of hospitals constructed of brick and mortar, of wood, and of canvas, I regard permanent hospitals as being far more efficient, and in the end more economical even in money cost. No outlay upon ornamentation is necessary, nor is any contemplated; and I trust that Nottingham will give to other towns a wholesome example of true economy by providing a plain, serviceable, and comfortable hospital, which, while primarily adapted to the current necessities of a town of nearly a quarter of a million inhabitants, among whom infectious disease is always present, would be capable of ready temporary extension in time of epidemics.

I am, Sirs, yours faithfully,

ARTHUR WHITELEGGE,
Nottingham, March 24th, 1888. Medical Officer of Health.

"MASON v. MARSHALL, SHAW, AND GAUCHARD."

To the Editors of THE LANCET.

SIRS,—Will you allow me to add a few words to your editorial comments on the above case in your last issue. My recent experience has led me to consult my legal advisers how to avoid the risk of again incurring the anxiety, worry, and great cost of defending an action for damages—for legally and conscientiously signing a lunacy certificate—and I am bound to say that the only practical advice I have received is "Don't do it." But to act on this advice would be a cowardly dereliction of duty. The alternative you suggest, of obtaining a deed of indemnification, I am assured, would either not hold good in law, or would render the contracting parties liable to an action for collusion. It would be difficult to conceive a case in which the position of the certifying doctors was stronger than that of Dr. Shaw and myself in this case. The patient's family and personal history were suggestive of insanity, and at the time we saw her her symptoms had assumed an acute form, and she was both dangerous and suicidal. The order of admission was signed by her sister, and we gave our services gratuitously; yet nearly four years subsequently we are called upon to defend ourselves in a court of law against a charge of "malice, collusion, wilful and corrupt falsehood," as well as "carelessness in giving, without reasonable or probable cause, insufficient certificates." The first three charges were withdrawn on an appeal from the judge (Mr. Justice Field) after the case had been opened, but without any expression of apology that such gross charges should have been so recklessly made against us without a vestige of truth or evidence to support them. The case for the plaintiff, as conducted by her leading counsel, Sir Walter Phillimore, called forth repeated censure from the bench. This, however, is a matter foreign to my present object in writing; but I venture to direct, with your permission, the attention of the profession to the fact of two of our *confrères* giving their support, or intending to give their support, to the prosecution in such a case. As a matter of fact, these two witnesses, so far as their evidence was worth anything, went in favour of the defendants. Dr. Tibbits showed the kind of expert (?) evidence on which the prosecution had to rely, and which was accepted at precisely what it was worth. Dr. Lyttleton (Forbes) Winslow, like Balaam, though engaged to curse us (so far as, to use Sir Walter Phillimore's expression, his "incoherent answers" were intelligible), blessed us altogether. In contrast to the behaviour of these two gentlemen, I have to express my gratitude to the other medical witnesses in the trial, as well as to those professional brethren who have so greatly aided me by their advice, and who, without a single exception, have declined all professional fees, thereby considerably reducing the necessarily very heavy expenses incurred in a case involving a four days' trial, and hardly mitigated by "costs" being granted against an impecunious plaintiff.

I am, Sirs, your obedient servant.

Clifton, March 26th, 1888. HENRY MARSHALL.

RAPID REDUCTION OF DEFORMITY AFTER TENOTOMY.

To the Editors of THE LANCET.

SIRS,—Mr. Parker states that he ignored "the possibility of deformity depending upon the contraction of one tendon alone" because "the question was not in dispute." As far as Mr. Howard Marsh's paper and my rejoinder are concerned, there was no *dispute* whatever, but contraction of one tendon alone was especially referred to. Even if contraction of one tendon alone had not been mentioned, it could not rightly be ignored when discussing the after-treatment of tenotomy. Mr. Marsh in his very practical paper urged that after tenotomy the foot should be brought

into a normal position *rapidly*—one-third at once, one-third at the end of a week, and the remaining one-third at the end of the second week. He mentioned the tendo Achillis, and such a case of contraction of one tendon alone very well exemplified his point. Mr. Marsh distinctly referred to this rapid reduction as an improvement on the old slow process, and yet as distinct from the "immediate method," of which he stated he had not sufficient experience to form an opinion. This led me to give my experience of the latter plan of operation, but I was not conscious of any *dispute* occurring.

Mr. Parker's letters seem to aim at introducing other matters, and they confuse the point which was first discussed. His plan of cutting the ligaments is a valuable addition to our means of reducing some of the severe forms of club-foot; but this is quite another subject, and does not bear at all upon the question as to how quickly reduction of a deformity, when depending upon contracture of muscles, may be safely effected after the tendons of those muscles are divided.

I am, Sirs, yours faithfully,

Queen Anne-street, March, 1888. NOBLE SMITH.

*** The point raised in the above controversy has now, we think, been sufficiently discussed.—ED. L.

PIT BURIAL NEAR GLASGOW.

To the Editors of THE LANCET.

SIRS,—Your Glasgow correspondent in THE LANCET of last week gives, at p. 601, a very shocking description of Dalbeth Cemetery, and appears to be under the impression that there is no remedy for such a state of things. It is not the first time that I have heard of this scandalous mode of pit burial near Glasgow. In the Public Medicine Section of the British Medical Association held in Dublin last August, I read a paper on the disposal of the dead, and in the discussion which followed a member from Glasgow described a mode of pit burial he had witnessed near his city, and which strikingly resembled that of your correspondent, though I cannot be sure that it was actually the same cemetery. In replying, I told him that complaint should be made to the Home Secretary, who would no doubt direct an inquiry to be made. One of the members for Glasgow should be moved to ask a question in the House of Commons; for assuming, as I am sure we may, that your correspondent has not overstated the facts, such a state of matters is scandalous, and calls for immediate reform.

I am, Sirs, yours faithfully,

Liverpool, March 24th, 1888. FRED. W. LOWNDES.

RABIES IN DEER.

To the Editors of THE LANCET.

SIRS,—With regard to the recent outbreak of rabies among the deer in Richmond Park, alluded to in THE LANCET of the 17th inst. (page 542), and to its being an unrecognised development of that malady, will you kindly allow me to state that this was not the first well-authenticated instance of rabies occurring among deer in this country. In "Rabies and Hydrophobia" (page 48) will be found an account of such an occurrence in 1856, at Stainborough, near Barnsley, in which many deer died with symptoms the same as those exhibited by the Richmond Park deer. Rabies was prevalent among dogs at the same time in the same locality, and people were bitten, great alarm being the result.

I am, Sirs, yours obediently,

March 22nd, 1888. GEORGE FLEMING, F.R.C.V.S.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE "SWEATING" SYSTEM IN NEWCASTLE.

THE "sweating" system of tailoring has been frequently vigorously attacked in THE LANCET, but we never knew until quite lately that it had got any footing in the north. Thanks, however, to an influential public meeting held in Newcastle last week under the presidency of the Mayor, we know a good deal about it now, and the more we know of it the less we like it. Its condemnation by medical and other speakers was very pronounced, and this was followed by the unanimous voice of a very large meeting. One of the speakers (Mr. Councillor Laird) stated "that it was of very recent date that the system had been introduced into Newcastle, and that there were certain parts of the town where it was carried out to perfection. In the greater number of instances female labour was employed for the purpose of making a garment as cheap as possible in order to compete successfully with legitimate workmen. The hours they worked were unlimited. There were several places of that kind in Newcastle. He was within bounds in saying there were a dozen places in which, if they went in at 8, 9, 10, or 11 o'clock at night, they would see these poor creatures toiling away." I believe myself that a practice so utterly opposed to all sanitary knowledge will not last long here, but there will be a public demand for a more stringent enforcement of the Workshops and Factories Regulation Act. It was shown that the provisions of this Act were, under the operation of the "sweating" system, most systematically and regularly evaded.

ACCIDENTS IN NORTHERN MINES.

The *Newcastle Chronicle* has published the annual preliminary summary of official mineral statistics, and the reference to accidents in northern mines is interesting. The total loss of life in mines in the north under the Coal Mines Act has been as follows:—

	1886.	1887.
Northumberland, North Durham ...	56	69
South Durham	83	81
Cleveland	17	12

The increased loss of life in the first-named district is largely due to the explosions of fire-damp. In South Durham the loss through explosions declines, but that through miscellaneous accidents underground increases, and in Cleveland the decrease is chiefly ascribable to less fatal falls in mines. Relatively to the number of persons employed in and about mines, Northumberland district showed rather worse, and those in South Durham and Cleveland increased in safety. Both the coal-producing districts named, however, are above the average in regard to safety in proportion to men employed. The metalliferous mines employed 600 more persons, both male and female; the number of lives lost in this class decreased, and a lower average was exhibited.

SUNDERLAND.

It is not surprising that small-pox has been imported into Sunderland from Spain. Three mild cases were found on board a steamer which came from Bilbao. The medical officer of health became aware of the cases, and he (Mr. A. E. Harris) had them immediately taken to the small-pox hospital at the workhouse, the new infectious diseases hospital for the borough not being completed yet, although it is time and very desirable it should be ready, seeing the special risk that Sunderland runs from importation of disease. I hear that a gentleman in the town has since taken the disease from a relative who had come from Spain, and he had died rather suddenly from it. The number of patients entered at the Sunderland Provident Dispensary during the past year amounted to 1439; prescriptions dispensed, 22,672; visits by medical staff to patients at their own homes, 1400. Number of consultations held at surgeries of medical officers, 12,500; and at the dispensary, 4183. At Gateshead Dr. Purdie has received a handsome presentation from the ladies attending the St. John Ambulance "first aid" classes, together with an expression of thanks for his admirable and painstaking instruction.

Newcastle-on-Tyne, March 26th.

DUBLIN.

(From our own Correspondent.)

MEDICAL INSPECTORSHIP, LOCAL GOVERNMENT BOARD.

IT is currently reported that Dr. E. C. Thompson, of Omagh, has been appointed a medical inspector of the Local Government Board in the vacancy caused by the promotion of Dr. O'Farrell. Dr. Thompson is surgeon to the Tyrone County Infirmary and Gaol, and visiting physician to Tyrone and Fermanagh District Lunatic Asylum, and his professional

abilities are held in high esteem in the locality in which he resides. The emoluments of the post—which is in the gift of the Chief Secretary for Ireland as President of the Local Government Board—are about £600 a year, with travelling expenses.

NEW FEVER WING TO SIR P. DUN'S HOSPITAL.

The governors are erecting a fever wing to the hospital, but its situation has been objected to by parties residing in the immediate vicinity. The law agent to the corporation last week, in a report to the Public Health Committee in reference to this matter, states that, as the building is being carried out in accordance with the corporation building bye-laws, the committee are not empowered under them to interfere with it. The building is not, and would not be, of itself, a nuisance to health; but it is equally plain that the establishment of a fever depôt in a crowded locality would be injurious to the health of the inhabitants of the neighbourhood, however calculated and intended to improve the health of the patients. It appears that there are no means provided by the Public Health Act for proceeding against the proprietors of a hospital, such as are provided by the 130th section of the Public Health Act in the cases of noxious trades or businesses. It is thought, however, that the Local Government Board have full power, under the 148th section of the Public Health Act, 1878, to make regulations to meet the case, and consequently the committee have given directions to communicate with the Local Government Board on the subject.

ELECTION OF CORONERS.

On Friday, the 23rd inst., the Acting Sheriff declared the result of the election of a coroner for West Clare. The candidates included three medical practitioners—viz., Drs. Sexton, Studdert, and O'Brien, and Mr. Hilliard, a solicitor. The excitement during the contest, which fortunately was conducted in a peaceable manner, was intense. The following was the result of the poll:—Dr. Sexton, 955 votes; Mr. Hilliard, 823; Dr. Studdert, 669; and Dr. O'Brien, 131. The salary attached to the coronership is said to be but £24 a year. Dr. Coghlan, of Kilmacow, has been elected coroner for South Kilkenny. The only other candidate was Dr. Fitzgerald, of Mallardstown House.

Dr. Travers has resigned the post of Lecturer on Forensic Medicine in the Ledwich School of Medicine, which he had held for the past forty-three years.

Dublin, March 27th.

PARIS.

(From our own Correspondent.)

THE CONGRESS OF SURGERY (*continued*).

IN speaking of the operation for the radical cure of hernia, M. SOCIN (of Basle) said that, up to the end of 1886 he had performed it 160 times, 75 times in uncomplicated cases, 85 times as a complement to kelotomy in strangulated hernia. Of the 75 patients 2 died; in the series of 85 there were 11 fatal results. Of the remaining 147 patients, 138 were followed up, and of this number the percentage of recurrences was 38. M. Socin concludes from his experience that—1. The radical cure for hernia is not a chimera. 2. The operation should be the necessary complement to every kelotomy for strangulation. 3. The radical operation should be performed in non-strangulated hernia: (*a*) in young people of both sexes under twenty years of age, whenever the hernia is not completely and permanently contained by a truss; (*b*) in adults, whenever the hernia is not supported efficiently and without pain. 4. The chances of success are the greater the younger the subject and the smaller and more recent the hernia. 5. The presence of a double hernia, and the history of this affection in the progenitors, diminish the chances of success. 6. Bodily exercise does not promote relapse. 7. The use of a truss after operation is unnecessary and often dangerous. 8. The operation is without danger in simple cases; the prognosis should, however, be guarded when the patient is aged, the hernia very voluminous, and when there is ulceration. 9. The operation consists of the total ablation of the sac below the ring; the suture of the pillars is only exceptionally required. 10. In congenital herniæ, dissection may offer some difficulties, but it is generally successful. 11. In cases of ectopia of the testicle, with atrophy, this organ should be removed with the sac.—M. LEONTE, of Bucharest, said that he had practised a new operation, which had given him seven successful results, without a failure. One of his patients had been operated on two years previously, without relapse, after incising the sac and returning the bowel. He cuts the serous membrane circularly at the level of the ring. The two edges resulting from the incision are immediately drawn from one another, leaving bare the subjacent cellular tissue. The membrane of the superior edge has a tendency to curl upwards, which is promoted by peeling it from the other tissues. To complete the occlusion all the surface thus freed from membrane is pursed up (*en bourse*) and sutured with catgut. The subjacent sac is not removed, but scraped, and its walls comprised in the same suture with the integuments.—M. THIRIAR (of Brussels) said that he had followed the precepts laid down by M. Socin since he had seen his *clinique*. He had performed the radical cure for hernia in fourteen simple cases. One patient only—an old drunkard—had died on the sixteenth day from encephalitis, the peritoneum remaining healthy. Of seven cases in which he had operated for strangulated hernia, there was also one death, in the case of an extremely stout man, the subject of diabetes, cardiac disease, and emphysema, who was brought to the hospital *in extremis*. A fortnight since he endeavoured to obtain information as to the after-history of his patients, but only four replied to his inquiries. The first had been operated on on both sides in March, 1886. The right had healed by first intention; on the left there had been suppuration. On the right side there had been a recurrence, but the hernia was small and reducible. The second patient was sixty-five years of age. There was at present a small, easily reducible tumour. The third was the subject of a large and extremely painful irreducible hernia. He was operated on in January, last year, the tumour being found to consist of the sigmoid flexure and of small intestine, with extensive adhesions. In ten days cicatrisation was complete. No truss was used, and at the present time there was scarcely any trace of the operation and no appearance of recurrence. The fourth patient was under the care of M. Thiriar for hæmatocele on the right side. He had a large irreducible hernia on the left side, which was treated by the radical operation last November, and which has so far shown no signs of relapse.—M. MOLLIÈRE recommended elastic ligature of the sac, and advised that before practising this part of the operation, the sac should be drawn down forcibly, so that the ligature should not only comprise the ring but the peritoneal funnel above it.—M. ROUTIER removes the sac entirely, ligatures its base, but does not suture the pillars. In fourteen cases so treated he had obtained fourteen cures. Six patients had been seen at least fifteen months after; one only in whom the sac had not been excised, but only scraped, had relapsed.—Professor TRÉLAT said that the relative freedom from danger was an important factor in the question of the opportunity for the operation for radical cure. Collecting some cases for statistical purposes, he found one series of 160 cases without a death, another equally favourable of 130, and in his own wards seventeen operations had been performed without any mortality. In fifteen instances there had not been one drop of pus. It was certain that the outlook was not so favourable in bad cases and where there were extensive adhesions, but at any rate more lives would be saved than lost.—M. BOECKEL (of Strasburg) said that he had not been so fortunate as the preceding speakers. In twelve operations he had lost two patients. Of the ten others, one had been lost sight of. Three had had no recurrence after six years; one after three years; one had remained well for two years and a half, when there was a tendency to relapse. One was cured a year since, and two four months ago. In two cases there had been immediate recurrence, but the herniæ, irreducible before the operation, were at present well supported. M. Boeckel said that he adopted the method of Lucas-Championnière.—M. SEGOND said that he had performed the radical cure in forty-four cases, thirty times after kelotomy for strangulated hernia, and fourteen times as matter of choice. As regards the freedom from danger, the series of fourteen must only be taken into consideration; amongst these there was no death. Of the thirty, one died of pulmonary congestion, one of tetanus, and three from the sequelæ of the strangulation, so that the addition of the radical operation to the kelotomy did not appreciably

increase the danger of the operation. As regards the immediate result, all the patients were pleased; and if the ultimate condition was sometimes less satisfactory, those who relapsed were so satisfied with the operation that they desired a repetition of it. As regards the question of definite cure, the chief object of discussion, half of the patients had been followed up. Two might be considered as radically cured. Of the remainder, *all those who had worn a truss have remained free from relapse; all who had not done so had relapsed.* —M. LUCAS-CHAMPIONNIÈRE said that he had performed eighty operations of radical cure, properly so-called, for uncomplicated hernia, without a death. Quite recently, however, he had lost a patient from pulmonary congestion, who had been treated under unfavourable conditions. The indications for the radical cure were more numerous than M. Segond recognised. Large painful herniæ necessarily required operation; but so did small ones, which would disappear entirely; and if the abdominal parietes were strong and healthy no truss would afterwards be necessary. The truss caused atrophy of the cicatrix, and so compromised the cure. In children the result was marvellous, because the hernia had not had time to distend and atrophy the ring. In large hernia there was more danger, particularly that of pulmonary congestion. Another unfavourable condition was the presence in the sac of large intestine. Lastly, albuminuria and other organic diseases were frequent causes of failure. It was for these reasons that the operation should be performed when the hernia is small.—M. RICHELOT said that he agreed with the preceding speaker; and MM. SCHWARTZ, DOYEN, and LE BEC related cases presenting interesting features.

M. LANNELONGUE related a case of Suppurating Perihepatitis communicating with the Lung. An opening having been made with the bistoury and enlarged with the thermo-cautery, portions of the lower ribs, up to the fifth, were resected.

M. GUYON, in speaking of Tuberculosis of the Bladder, said that for a long time he had, like everyone else, treated it by general remedies. In two cases, however, he had applied local treatment. In one the bladder was opened above the pubes, the neck dilated, and the parts carefully smeared with iodoformed oil. After seventeen days' drainage the patient recovered, and had been well for the last three years. In the second instance tuberculosis was also limited to the bladder. After laying open this organ, the affected part was scraped and treated with the actual cautery. The patient had remained with cystitis, but, as in the preceding case, the bacilli had disappeared from the urine.

M. TERRIER thought that it was unnecessary to enter into the *modus operandi* of Vaginal Hysterectomy as the *technique* was definitely settled. Of his cases, fourteen recovered and four died; mortality 22 per cent. In seven instances relapse occurred in from one to sixteen months.—M. ROUTIER said that whenever cancer of the body of the uterus had been accurately diagnosed by dilatation of its cavity, the organ, if movable, should be removed by this operation.—M. POZZI was of opinion that vaginal hysterectomy was indicated in all those cases in which amputation of the cervix was formerly performed. It is counter-indicated where the implication of the broad ligaments was shown by absence of mobility, and where the volume of the uterus rendered its extraction difficult or impossible except in fragments. Palliative hysterectomy, with or without resection of the vaginal cul-de-sac, was a bad proceeding. Where a palliative operation only was feasible, scraping with a sharp curette, followed by actual cauterisation, was preferable to irregular supravaginal amputation of the cervix. In cases of cancer of the neck or body of the womb, limited to this organ, scraping and cauterisation were better than Freund's operation of ablation by abnormal section. As regards forci-pressure after operation by hæmostatic forceps, as advocated by M. Richelot and others, this method of arresting hæmorrhage rendered antisepsis difficult and dressing painful. It should only be used, then, when absolutely necessary, ligatures being preferable. Forci-pressure *à demeure* was, in fact, only required in cases of hysterectomy that ought not to have been undertaken.

M. TERRILLON communicated his results in Abdominal Hysterectomy. This should be reserved for large fibromata, developed in proximity to the abdominal wall and giving rise to hæmorrhage sufficient to endanger life. For small tumours ablation of the ovaries and tubes was to be preferred. When the fibroma was situated near the cervix or the cavity of the uterus a different treatment was necessary.

M. MONOD described a case of Lymphangioma constituted by a cavernous tissue, the cavities of which were lined by endothelium, similar to that of the lymphatics, and containing a serous fluid. Most cases called by this name had been in reality examples of lymphangiectasis. M. Monod had only found two examples similar to his case—one of Reichel, the other of Middeldorpf. These neoplasms should be removed by extirpation, which was free from danger.

M. SCHWARTZ related a case of Erectile Tumour treated by Electrolysis. The treatment lasted two years and a half, and 350 punctures with the positive needle were performed, the current used varying between 45 and 50 milliampères. The result had been most satisfactory.—M. BOUDET of Paris said that he had modified the usual process by increasing the size of the negative electrode. An apparatus constituting a concentric pole prevented the determination of the current towards the head. The needles should be of gold, to prevent oxidation, and the strength of the current should be gradually increased. Reversal of the current, particularly in the neighbourhood of the head, should be avoided, as it might give rise to syncope.—M. REDARD said that he made use of currents of from 10 to 15 milliampères, and always practised reversal with benefit.

M. BILHAUT pointed out the influence of a difference in the length of the legs in the causation of Scoliosis. When this was the case, the equilibrium should be restored by supplementary soles to the boots, and the smaller member should be developed by means of gymnastics, massage, electricity, and hydropathy.

M. LE FORT opened the discussion on Resection of the Ribs for Chronic Suppuration of the Pleura by stating that he considered the operation a good one, although when there was a very large suppurating cavity it was not always entirely successful, a troublesome fistula sometimes remaining. In one case the patient was seized during the operation with an epileptiform attack, and had remained since with complete paralysis of the upper extremities and incomplete paralysis of the legs, and also with some mental disturbance.—M. THIRIAR had performed this operation nineteen times on thirteen patients. One died of acute pleuro-pneumonia; one left the hospital partially cured, with a suppurating fistula; the remaining eleven were radically cured. In two cases the Létiévant-Estlander operation was a preliminary to pneumotomy. M. Thiriar thought it better to resect two ribs unnecessarily than to leave one that ought to be resected.—M. BOECKEL had performed the operation twelve times, with nine successes. Three of the patients, the subjects respectively of albuminuria, phthisis, and cardiac disease, had died. Of the nine others six were completely cured, two remained with fistulæ, and one succumbed later to phthisis. As a rule, surgeons were too timid. When it was necessary, in order to obtain flattening of the chest, to excise the ribs high up and behind, the scapula might be removed, and the thickened pleura might sometimes be excised.—M. DELORME thought that the Létiévant-Estlander operation was insufficient, not only when the pleural cavity was very extensive and the lung much retracted, but also when the cavity was of middling depth. It was necessary to practise incision of the pleura and methodical scraping of the cavity more often than was done. —M. BOUILLY had had thirteen operations with eight perfect results. He thought it better not to interfere with very large cavities. Medium-sized cavities were most favourable for operation. The thickened pleura might require excision. Fistulous passages should be scraped and treated with chloride of zinc. The ribs should be removed without fear.—M. BERGER said that he formerly considered the operation innocuous, but that he was now of opinion that reserve and moderation were necessary in removal of the ribs. Cases were related in support of this view.—MM. KIRMISSON and FAUVEL (of Havre) each mentioned a case.—M. OLLIER (of Lyons) pointed out that in children the success of the operation might be compromised by the rapid formation of new bone. He counselled the dissection and removal of the periosteum after the ablation of the bone. Scraping did not suffice.—M. LEVRAT concurred with this recommendation.—M. MOLLIERE of Lyons closed the discussion on this question by stating that in his town costotomy was so common that not only had he performed it a great number of times, but it was quite usual for the physicians to do it themselves instead of sending their patients into a surgical ward. Everyone recognised that it was easy and effectual.

THE SERVICES.

Deputy Surgeon-General G. M. Slaughter, Principal Medical Officer at Chatham, has been ordered to London as Principal Medical Officer of the Home District.

INDIA OFFICE.—The Queen has approved of the retirement from the Service of the undermentioned Officers of the Indian Military Forces:—Surgeon-General William Jas. Moore, C.I.E., Bombay Medical Establishment (dated Feb. 25th, 1878); Deputy Surgeon-General Robert Faure Hutchinson, M.D., Bengal Medical Establishment (dated Dec. 9th, 1887). The Queen has also been pleased to approve of the transfer of the undermentioned Officer from the Half-pay List to the Retired List: Surgeon-Major William Frederick Knapp, Bombay Medical Establishment (dated March 18th, 1888). The Queen has also been pleased to approve of the grant of a step of honorary rank on retirement to the undermentioned Officer: Deputy Surgeon-General Robt. Faure Hutchinson, M.D., of the Bengal Medical Establishment, to be Surgeon-General (dated Dec. 9th, 1887).

MILITIA MEDICAL STAFF.—Surgeon-Major R. Turner, 3rd Brigade, Cinque Ports Division, Royal Artillery, resigns his Commission; also is permitted to retain his rank, and to wear the prescribed uniform on his retirement (dated March 24th, 1888).

ARTILLERY VOLUNTEERS.—1st Volunteer (Norfolk) Brigade, Eastern Division, Royal Artillery: Alexander Walker Knox, M.B., to be Acting Surgeon (dated March 24th, 1888).

ROYAL ENGINEERS.—2nd Gloucestershire (the Bristol): George Alexander Gloag, Gent., to be Acting Surgeon (dated March 24th, 1888).

RIFLE VOLUNTEERS.—1st (Brecknockshire) Volunteer Battalion, the South Wales Borderers: Acting Surgeon Talfourd Jones, M.B., resigns his appointment; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on this retirement (dated March 24th, 1888).—3rd (Glamorgan) Volunteer Battalion, the Welsh Regiment: Surgeon J. L. W. Ward is granted the honorary rank of Surgeon-Major (dated March 24th, 1888).—2nd Volunteer Battalion, the Prince of Wales's Volunteers (South Lancashire Regiment): Frederic Joseph Knowles, Gent., to be Acting Surgeon (dated March 24th, 1888).—2nd Volunteer Battalion, the Worcestershire Regiment: Acting Surgeon W. L. Braddon, M.B., resigns his appointment (dated March 24th, 1888).

THE VOLUNTEER MEDICAL STAFF CORPS (the London Division).—Surgeon and Honorary Surgeon-Major Arthur Trehern Norton to be Surgeon-Commandant, vice J. Cantlie, M.B., resigned (dated March 3rd, 1888).

Medical News.

SMALL-POX IN KNUTSFORD GAOL.—Small-pox is existent in Knutsford Gaol, and the Home Office has issued instructions for the prisoners in the Macclesfield district to be sent to Manchester, Nottingham, and Stafford.

AT a special meeting of the governors and subscribers to the Royal Albert Hospital, Devonport, held on the 17th inst., it was decided that an ophthalmic surgeon be appointed to the institution.

THE publication of the Transactions of the recent Medical Congress at Washington is progressing satisfactorily, and it is probable that at least three volumes will be ready for delivery early in May next.

AT a meeting of the governors of the Dorset County Hospital on the 19th inst., it was decided, after a lengthy discussion, not to appoint an additional physician to the institution.

PLEURO-PNEUMONIA has appeared in a serious form in Westerham, Kent, but it is hoped that the prompt slaughtering of the beast affected with it will have had the effect of extinguishing the disease in the locality.

AT a recent meeting of the Yorkshire Association of Medical Officers of Health, held at Leeds, the President, Dr. T. Britton, read an interesting and valuable paper on "Harrogate as a Winter Health Resort."

CENTENARIAN.—The death has just occurred at Sellyoak, near Birmingham, of a man named Phillips, who was a hundred years of age, and one of the survivors of the battle of Waterloo. The veteran is reported to have retained his physical energy to the last in a wonderful degree.

AT an inquest held on the 22nd inst., at Newhaven, on the body of James Patrick Mackin, L.R.C.S.I., who had for some two years practised in that town, the jury returned a verdict of death from misadventure through having taken an overdose of opium.

OUTBREAK OF ANTHRAX IN YORKSHIRE.—A serious outbreak of anthrax is reported as having occurred at Newton-in-Bowland, in the West Riding of Yorkshire, near Clitheroe. The matter has been reported to the local authorities, who are taking measures to prevent the disease from spreading.

MEDICAL MAGISTRATES.—The Chancellor of the Duchy of Lancaster has appointed Thomas Munns Wills, F.R.C.S.I. &c., and Thomas Frederick Young, M.K.Q.C.P.I., M.R.C.S., Justices of the Peace for the borough of Bootle-cum-Linacre.—Dr. William Thursfield has been placed on the commission of the peace for the borough of Bridgnorth.

AT a special meeting of the Drainage Committee of the Heckmondwike Local Board on the 21st inst., it was decided that the scheme for the drainage of the town submitted by Mr. Haller be approved, and that steps be taken to obtain requisite borrowing powers for the carrying out of the work.

NORTH LONDON HOSPITAL FOR CONSUMPTION.—At the annual meeting of the governors of, and subscribers to, this institution on the 21st inst. it was reported that the number of in-patients received during the past year was 320, and of out-patients 2900. The receipts had amounted to £5714, against £4492 in the previous twelve months, and there remained a balance of £1390.

ST. MARYLEBONE WORKHOUSE.—New quarters for aged married couples have recently been provided at this institution. Accommodation is afforded for ten couples, each of whom has a separate apartment 12 ft. long by 10 ft. wide, provided with a fire and comfortably furnished, while there is also a day-room on the ground floor 21 ft. long and 16 ft. wide.

PUBLIC PARKS, KEIGHLEY.—It has been decided by the Town Council to select fifteen acres of land at Exley Head for a park, and to accept the gift of some land from Mr. Lund for widening Ackworth-road, which is near the park. It has also been resolved to purchase land for £250 for the purpose of adding to Devonshire Park, lately presented by the Duke of Devonshire.

FOOD INSPECTION IN AMERICA.—The United States Senate has passed the Bill providing for the inspection of meats for export, and prohibiting the importation of adulterated or unwholesome foods, or of vinous, spirituous, or malt liquors adulterated or mixed with any poisonous or noxious chemical drug or other ingredients injurious to health. The Bill further prohibits the importation of diseased or infected animals, or those exposed to disease or infection.

RAILWAY SERVANTS' HOURS OF DUTY.—A Parliamentary paper has been published containing a return, moved for last year by Earl De La Warr, of weekly paid servants who were, during specified months, on duty on railways for more than twelve hours at a time, or who, after being on duty more than twelve hours, were allowed to resume work with less than eight hours' rest. The months chosen were July, 1886, and January, 1887.

MANCHESTER MEDICAL SOCIETY.—A largely attended complimentary dinner was given to Dr. Cullingworth by this Society at the Queen's Hotel on the 15th inst., on the occasion of his approaching departure to London to undertake the duties of obstetric physician to St. Thomas's Hospital. The chair was taken by Professor Dreschfeld, President of the Society, who, in proposing Dr. Cullingworth's health, referred to his long and valuable services to the Society and the profession in Manchester. A presentation of plate was afterwards made by Dr. Leech on behalf of a number of friends. Amongst those who subsequently spoke in support of the toast of the evening were Sir W. Roberts, and Drs. Simpson, Lloyd Roberts, Rees, and Martin.

WORCESTER GENERAL INFIRMARY.—It appears from the 143rd annual report presented to the governors of this institution at their annual meeting on the 19th inst. that the number of in-patients during the past year was 1289, and of out-patients, including dental patients, 8052. The expenditure for the year (excluding cost of the extensions) was £4547, and the income amounted to £3538, leaving a deficiency of £1009.

MEDICAL NOTES IN PARLIAMENT.

The Budget.

IN the House of Commons on the 26th inst. the Chancellor of the Exchequer introduced the Budget for the current financial year. It contained little of interest to the medical profession. A tax of £1 is to be put on "pleasure horses" (on which we comment elsewhere), vehicles of less weight than 2 cwt. will be exempt from taxation, a duty of 5*s.* per dozen has been put on bottled wines, and the income-tax is to be reduced to 6*d.*

The Condition of Bethnal-green.

In answer to Mr. Howell, Mr. Ritchie said that the report of the Commissioners who held an inquiry into the sanitary condition of Bethnal-green had been received, and would be laid before Parliament at once.

Army Medical Officers.

In answer to Dr. Tanner, Mr. Brodrick said that, as regards pay and allowances, the regulations limit the payment to a retired medical officer to £150 in addition to his retired pay. As regards military *status*, such officers are entitled, under certain restrictions, to the rank and position which they held in the Army Medical Department before their retirement. They do not count service subsequent to retirement towards increase of pension.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ALLEN, W. CHRISTOPHER, L.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Willington Urban District.

BERRY, H. POOLE, M.B.Lond., M.R.C.S., has been appointed Medical Officer of Health for Grantham, vice Ashley, resigned.

BOULTER, HAROLD B., L.R.C.P.Lond., F.R.C.S.Eng., has been appointed Visiting Medical Officer to the Richmond Dispensary, vice Law, resigned.

BROWN, JAMES, M.B., C.M.Ed., has been appointed Medical Officer for Vaccination for the Oldbury district of the Berkhamsted Union, vice Pope, resigned.

BUNCLE, ALEXANDER, M.B., C.M.Ed., has been reappointed Medical Officer of Health for the Featherstone Urban District.

CAMERON, JOHN, M.B., C.M.Glas., has been appointed Surgeon to the Bristol Dispensary.

CANTER, WILLIAM J. B., L.R.C.P.Lond., M.R.C.S., has been appointed Registrar to the Cancer Hospital, Brompton.

CHURCHILL, J. F., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Second Chesham District of the Amersham Union.

CROWE, GEORGE W., B.A., M.D., L.R.C.S.I., has been reappointed Honorary Physician to the Worcester General Infirmary.

DAVEY, Mr. W. H. C., has been appointed House Surgeon to Charing-cross Hospital.

DEELEY, WILLIAM, M.D., M.Ch., L.K.Q.C.P.I., has been reappointed Medical Officer for the Leavening District of the Malton Union, Yorkshire.

DUNCAN, J. THORNTON, F.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer for the Barnack and Ryhall District of the Stamford Union.

ELLISTON, GEORGE SAMPSON, M.R.C.S., L.S.A., has been reappointed Medical Officer of Health for the Ipswich Port Sanitary Authority.

GARDINER, D. F., M.B., C.M.Ed., has been appointed Medical Officer for the Beighton District of the Rotherham Union.

GELSTON, JOHN SEYMOUR, L.K.Q.C.P.I., L.R.C.S.I., has been re-appointed Medical Officer for the Sapiston District of the Thetford Union.

HAILEY, CHARLES C., L.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer of Health for Newport-Pagnell.

HAY, MATTHEW, M.D., C.M.Ed., has been appointed Medical Officer of Health for the City of Aberdeen, Police Surgeon, Medical Attendant to the City Hospital, and Examiner of the Quality of Gas, vice Thomson, resigned.

MCMURRAY, JOHN, M.D., M.Ch. Roy. Univ. Irel., has been appointed Officer for the Branch Workhouse of the Parish of Liverpool.

MARTLAND, THOMAS, M.R.C.S., L.S.A., has been appointed Medical Officer for the Workhouse and the Wigan District of the Wigan Union.

MOULD, W. T., L.R.C.P., M.R.C.S., has been appointed House Physician to the London Hospital, vice C. G. May, B.A., M.B.

PAGE, W. IRVING, M.R.C.S., L.S.A., has been reappointed Surgeon to the Wimbleton Cottage Hospital.

PEAKE, WILLIAM P., L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Infirmary of the Parish of St. Marylebone.

PETHERICK, WALLACE, L.R.C.P.Lond., M.R.C.S., has been reappointed Medical Officer for the Hepworth District of the Thetford Union.

POCKLINGTON, EVELYN, M.R.C.S., L.S.A., has been reappointed Surgeon to the Wimbleton Cottage Hospital.

PROWSE, ARTHUR B., M.D.Lond., F.R.C.S.Eng., has been appointed Physician to the Bristol Royal Infirmary, vice Spencer, resigned.

RUDDOCK, WILLIAM JAMES, M.B.Durh., M.R.C.S., has been appointed Resident Medical Officer for the Workhouse of the Newcastle-on-Tyne Union.

SLOAN, SAMUEL, M.D.Glas., has been appointed Examiner in Midwifery to the University of Glasgow.

SWETE, EDWARD H. W., M.D.St.And., M.R.C.S., has been reappointed Honorary Physician to the Worcester General Infirmary.

TRUMAN, B. B., M.D.St.And., M.R.C.S., has been appointed Honorary Surgeon to the Nottingham and Midland Eye Infirmary, vice Worth, deceased.

VERNON, RICHARD, M.D., C.M.Glas., has been reappointed Medical Officer for the Audley District of the Newcastle-under-Lyme Union.

WATSON, T. A., M.B., C.M.Ed., has been appointed Assistant Medical Officer to the Infirmary of the Woolwich Union.

WHITAKER, G. H., L.R.C.P.Ed., L.R.C.S., has been reappointed Medical Officer of Health for Horwich.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Senior Resident House Surgeon. Salary £80, with board and laundry service.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.—House Surgeon.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Resident Clinical Assistant.

CORPORATION OF DERBY BOROUGH ASYLUM.—Medical Superintendent. Salary £350, with furnished house, gas, water, coal, vegetables, and washing.

HULL BOROUGH ASYLUM, Willerby, near Hull.—Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing.

LIDDELL PROVIDENT DISPENSARY, Jarrow-on-Tyne.—Medical Officer. Salary to commence at £200 per annum.

ROYAL ALBERT HOSPITAL, Devonport.—Honorary Ophthalmic Surgeon.

WEST LONDON HOSPITAL, Hammersmith-road, W.—Clinical Assistants.

Births, Marriages, and Deaths.

BIRTHS.

FOTHERGILL.—On the 24th inst., at St. Gregory's, Bedale, the wife of Thomas P. Fothergill, M.D., of a daughter.

FULLER.—On the 20th inst., at Curzon-street, Mayfair, the wife of Henry Roxburgh Fuller, M.D.Cantab., of a son.

HARLAND.—On the 24th inst., at Eastridge, Ryde, Isle of Wight, the wife of Henry Harland, M.D., of a son.

MATTHEWS.—On the 22nd inst., at Suffolk-street, Pall-mall, the wife of Valentine Matthews, M.R.C.S., of a son.

MILES.—On the 22nd inst., at Callan-park, Sydney, New South Wales, the wife of George E. Miles, L.R.C.P. Lond., M.R.C.S., of a daughter.

MARRIAGES.

CLAPHAM—LLOYD-GRIFFITH.—On the 27th inst., at Christ Church, Carnarvon, by the Rev. John Julian, M.A., uncle of the bride, assisted by the Rev. J. Wynn-Jones, M.A., Vicar, Crochley Clapham, M.D., of Grange Hall, near Rotherham, to Millie, second daughter of W. Lloyd-Griffith, of Bodafon, Carnarvon.

JONES—EVANS.—On the 21st inst., at Emmanuel Church, Everton, Liverpool, Surgeon J. M. Jones, Army Medical Staff, to Kate, younger daughter of the late Capt. G. O. Evans, United States Army, of Beaver Dam, Wisconsin, U.S.A.

WHITE—TRAVERS.—On the 22nd inst., at the Parish Church of St. Peter's Port, Guernsey, Frank Faulder White, M.R.C.S., L.R.C.P., to Eve, third daughter of the late Capt. Dalgairns Travers, 17th Regiment.

DEATHS.

EVANS.—On the 20th inst., at St. Agnes-villas, Porchester-gate, W., Surgeon William Evans, R.N. (retired), aged 63.

GARDNER.—On the 19th inst., at Argyle-place, Cheltenham, Surg.-Major R. H. Gardner, M.D., Medical Staff, in his 37th year.

MARTIN.—On the 10th inst., at Holroyd House, Shebbear, N. Devon, Surgeon-Major Thomas Edward Pearce Martin, Indian Medical Service (retired), aged 64.

ORTON.—On the 20th inst., at Newcastle, Staffordshire, Brigade-Surgeon R. J. W. Orton, A.M.D. (retired), aged 56.

PAXON.—On the 20th inst., at Dorking, George Kirkham Paxon, M.R.C.S., L.S.A., aged 75.

WILSON.—On the 20th inst., at his residence, 97, Causeyside-street, Paisley (from the effects of blood poisoning), Frank Wilson, M.B., C.M.Glas.

WOOD.—On the 18th inst., at Denmark-road, Gloucester, Alfred J. Wood, M.D., in his 81st year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, April 2

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

Tuesday, April 3.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Colman: Intestines in Diphtheria.—Dr. N. Moore: Some Anatomical Relations of Chronic Joint Disease.—Dr. Hadden: Cyst in the Heart.—Dr. Semon and Mr. Shattock: (1) Subglottic Alveolar Sarcoma in a Patient aged Eighty-one; (2) Epithelioma of Right Half of Larynx, with Epitheliomatous Insula on Left Vocal Cord; (3) Intra-tracheal Carcinoma continuous with Carcinoma of the Thyroid.—Dr. Handford: New Growth of Lung perforating Œsophagus and invading Pericardium.—Dr. H. G. Mackenzie: Cystic Kidney, with Calculi in Cysts.—Mr. Silcock: Cystic Disease of Testis. Card Specimens:—Mr. Eve: Cyst of Spermatic Cord.—Dr. F. J. Smith: Aortic Stenosis.—Dr. Handford: (1) Single Hypertrophied Kidney; (2) Multiple Tubercular Strictures of Intestine.—Mr. Fenwick: (1) Vesical Carcinoma; (2) Prostatic Carcinoma.—Dr. Drewitt (for Dr. H. P. Cholmeley): Lung from case of Hæmoptysis in an Infant.—Mr. Shattock: Recurrent Sarcoma of Thyroid associated with Hypertrophy of Accessory Thyroid.

Wednesday, April 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-ST.—Operations, 9 A.M.; Saturday, same hour.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown. Adjourned discussion on Dr. Boxall's papers on "Scarlatina during Pregnancy and the Puerperal State."—Dr. Champneys: Description of a New Operation for Vesico-uterine Fistula.—Dr. Cullingworth: Cyst connected with the Uterus, and simulating Enlargement of that Organ.—Mr. Bland Sutton: The Glands of the Fallopian Tubes and their Function.

Thursday, April 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Dr. John Phillips: On the Management of Pregnancy complicated with Fibroids.—Dr. Robinson: Alopecia Areata.

Friday, April 6.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Second Clinical Evening. Adjourned Discussion on Mr. Roche Lynche's case of Cancer of the Vertebræ.—The President (Mr. Keetley): (1) Case of Exophthalmic Goitre; (2) Case of Large Wen on the Neck treated by a New Method.—Mr. Swinford Edwards: Case of Inguinal Colotomy.—Mr. Percy Potter: Case of Rare Congenital Deformity of the Hands.—Mr. Prior Mallam: Case of Dermoid Cyst of Ovary expelled during Labour.—Mr. Percy Dunn: Case of Perforation of an Eyeball with the Knot of a Whip.—Dr. Alderson: Case of Calculus in a Tonsil.

Saturday, April 7.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 28th, 1888.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 22	30·03	W.	36	34	...	49	31	...	Overcast
,, 23	29·37	W.	43	42	...	42	36	·43	Raining
,, 24	29·43	N.E.	38	36	71	42	36	·06	Overcast
,, 25	29·12	S.W.	38	36	65	44	36	·19	Cloudy
,, 26	29·07	S.W.	40	39	59	46	39	·14	Raining
,, 27	29·09	N.W.	36	35	52	44	35	·26	Cloudy
,, 28	28·84	S.E.	43	42	...	49	42	·10	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE CASE OF DR. MAGNER.

AN Irish correspondent writes to complain of the use of the words "criminal organisation" in our Dublin correspondent's letter last week, as he thinks it is calculated to leave an impression on the minds of our readers who may be unacquainted with the circumstances "that Dr. Magner was sent to prison and then deprived of his means of livelihood by the Local Government Board for taking part in organisation of crime, whereas the offence with which he was charged under the Coercion Act was the formal proposal, at a meeting, of a series of resolutions demanding self-government for Ireland."

Mr. R. G. Cookson.—Not if our correspondent had acted in ignorance of the nature of the arrangement he was being invited to make. Had he done so knowingly, he would have rendered himself liable to censure.

Anxious.—We do not prescribe. A surgeon should be consulted.

PEPPERMINT DRESSINGS.

To the Editors of THE LANCET.

SIRS,—In answer to inquiries respecting oil of peppermint dressings, kindly give me space to say that they may be prepared best by the method used for making eucalyptus gauze, &c. My "piperated" gauze was prepared for me by Ferris of Bristol in a strength of 1 in 1000, and was in every way effective. It smells strongly of the essence. Curiously enough, I see in your journal an article printed contiguously to my own upon Kremianski's treatment. But I see in each case a much larger quantity of either anise or peppermint oil was used with the aniline. Should not this rather be treatment by peppermint?

I am, Sirs, yours sincerely,

Manchester, March 27th, 1888. W. LEONARD BRADDON.

A LUNATIC CHEMIST AT LARGE.

To the Editors of THE LANCET.

SIRS,—I hear on good authority that a chemist in the suburbs of London has become insane, and that all the local practitioners are afraid to certify, in consequence of recent vexatious actions. I should advise your readers to obtain their medicines in London till some wholesale slaughter of the innocents has occurred, which may perhaps open the eyes of the authorities to the necessity of protecting medical men who formerly undertook the thankless task of assisting in the incarceration of dangerous lunatics, but who now do not consider the game worth the candle.

I am, Sirs, yours faithfully,

March 27th, 1888. AN ALIENIST.

THE TREATMENT OF CANCER.

To the Editors of THE LANCET.

SIRS,—As this interminable subject is constantly receiving notice in your columns, I would like to bring to your readers' notice a mode of treatment which, if not historically true, is at least a medical curiosity. Having no faith myself in the therapeutic value of drugs in this connexion while I am a believer in what is called the constitutional origin or character of this disease, I merely employ in its treatment such medicaments, hygienic and otherwise, as conduce most towards euthanasia, and this being so I need not dwell any further on these points.

In one of the numerous letters that Junius wrote to Woodfall, and which were so often afterwards utilised for his identification, the following passage occurs: and though we know that spiders, toads, and other vile—ay, much viler—substances were formerly used in our Pharmacopœias, I am not aware that they were in vogue so lately as the reign of George III. Be that, however, as it may—and your readers are just as well or better informed on these points than I am,—I proceed to business, and charge Junius, on the authority of Mr. Twisleton ("The Handwriting of Junius," p. 25), with asserting that "nothing keeps her [the then Princess of Wales] alive but the horrible suction of toads. Such an instance of divine vengeance would [he thinks] convert an Atheist." Mr. Twisleton observes further on: "I am indebted to Professor Newton of Cambridge for an explanation of these two passages. During a certain period of last century live toads were applied as a supposed cure or as a relief to cancerous breasts. In the third volume of Pennant's 'Zoology,' page 389, edition of 1776, a letter is published, bearing date 'Exon, August 29th, 1768,' in which the process is described to Dr. Lyttleton, the then Bishop of Carlisle, by Mr. Patfield, a medical eye-witness. The toad was put into a linen bag, all but its head, and that was held to the sore, which the animal sucked greedily. A woman supposed to have been cured in this way was said to have toads on her day and night for five weeks without intermission. Numerous other details are [he adds] mentioned in the letter, which is worth reading."

I am, Sirs, your obedient servant,

Auriol-road, W., March 12th, 1888. W. CURRAN.

P.S.—By the way, is there any teaching or tradition in our profession as to the personality of Junius? Many will, of course, at once say that Macaulay has settled this question. But he has not. Neither have Parkes and Merivale been more successful; and the *Athenæum*—for whose literary competence and authority I have great respect—persistently denies this impeachment or ascription.

Viator might consult with advantage a series of articles on holidays published in the earlier numbers of the second volume of THE LANCET for 1887. Much of the information desired by our correspondent will be found in one or other of those articles.

Mr. A. Goldney Chitty.—We must refer our correspondent to our advertising columns.

Mr. A. F. Clarke (Mitcham).—Practical midwifery can be taken out anywhere, but for the Conjoint Board lectures must be attended.

"TENOTOMY FOR PIANISTS."

To the Editors of THE LANCET.

SIRS,—In answer to a query on the above subject which appeared in your last issue, as to the result of division of the accessory slips of the extensor tendon of the ring finger in pianists, I beg to state that I have seen and know of three cases (all medical students) in which, there being an inability to stretch the fingers in order to compass an octave thoroughly, they have had the slip joining the ring and little fingers subcutaneously divided with an ordinary tenotomy knife, and with very satisfactory results. In no case, I believe, was there much scar left, and they can all now use their fingers thoroughly.

I am, Sirs, yours faithfully,

Malton, Yorkshire, March 27th, 1888. JAMES T. R. MILLER.

*** In reference to the query of Mr. G. A. Wright in connexion with the above subject, a correspondent directs our attention to a paper in the "Magazine of Music" of June, 1886, in which the author, Mr. James Oliphant, describes the result in his own case of division of the accessory slips of the extensor tendon of the ring finger.—ED. L.

"UNQUALIFIED" ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—Will you kindly give me a small space in your valuable journal for the following query—What are to become of the now unfortunate body, "unqualified" assistants? By the edict lately gone forth from the Medical Council, we are to receive our *congé en masse*. By all means get rid of unqualified assistants; but, Sirs, I protest against the term being applied to men like myself, who have fulfilled a pupilage, done more than half the hospital curriculum, and seen many years of medical practice. Surely the line can be drawn between qualified (practically) assistants and qualified practitioners. Moreover, in these times of reduced fees, two-thirds of medical practitioners can ill afford to pay the salary which would be fairly demanded by a legally and "practically" qualified assistant. I am, Sirs, yours faithfully,

March 26th, 1888. FIDES.

THE USE OF CAUSTIC POTASH IN THE TREATMENT OF SPREADING ULCERS.

To the Editors of THE LANCET.

SIRS,—The following unusual and peculiar case occurred lately amongst my patients, and deeming it interesting to the medical profession I send you a short description of the facts in connexion with it.

Miss ——, aged twenty-five, came to me complaining of her right eye paining her. On interrogation I learnt that she had been suffering only for three days, but that during that period she had not slept at all. On examination I found at the outside of the external canthus, and extending for a quarter of an inch outwards, a circular indurated spot, very tender to the touch and deep red in colour. On everting the external canthus an angry-looking ulcer came into view, reaching from the above to the junction of the ocular and palpebral conjunctiva, being a quarter of an inch long and a sixteenth of an inch broad. On either side of the ulcer were large vessels running obliquely to its margins. It also extended along the upper margin of the lower eyelid for three-quarters of its extent. There was intense photophobia and blepharospasm—so much so that it was with great difficulty the lids could be separated. The conjunctiva was acutely inflamed, also the cornea, the former being accompanied with considerable chemosis. The iris was a little hazy and sluggish in its movements. The sight was dim, but no optic neuritis. I may add that the patient has had rheumatic fever three times, and now has a systolic mitral murmur.

Treatment.—I ordered blister for forehead and temporal region, and the following lotion:—℞ Zinci sulphas, grs. ii.; atropiæ sulphas, grs. ii.; aq. ad ℥ss.; ut. o. h. Also wet compresses for the eye. For medicine:—Tr. aconiti, ♏xxiv.; tr. ferri perchlor., ʒiii.; aq. ad ℥vi.; ℥ss. o.h. In spite of this treatment the ulcer and all symptoms were much worse next day. Taking into consideration the spreading of the ulcer on to the eyeball, and perhaps entire loss of the sight in a very short time, unless very decisive treatment was used, I adopted the following: The whole surface of the ulcer was rubbed with solid caustic potash, and then the eye was washed out with a dilute solution of hydrochloric acid. The lotion and compresses were continued afterwards. In two weeks' time the ulcer had entirely healed and all the symptoms disappeared. The above case illustrates the use of solid caustic potash in such spreading ulcers by the rapid way in which the above healed.

I am, Sirs, faithfully yours,

CHARLES F. WILLIAMSON, M.R.C.S., &c.

Horley, Surrey, March 25th, 1888.

"HARD TIMES IN THE PROFESSION."

To the Editors of THE LANCET.

SIRS,—With all deference to the opinions of "L.S.A. Lond.," my experience of sixpenny doctors is that they are decidedly "cheap and nasty," and in the words of your admirable leader on the subject they are "identified rather with a low style of practice and an inferior quality of drugs than with the great profession whose members have commanded the veneration and respect of mankind." One of these sixpenny gentlemen styles himself "Physician," sends agents to canvass for patients (and unfortunately gets them from the regular practitioners) as well as to collect the 3*d.* a week for which he will attend a whole family. He also wrote to a friendly society offering his services for 3*d.* a head less than they were paying me. We have also bonesetters, who get nearly every simple fracture and minor injury which turns up, to the discredit of any unfortunate practitioner who has been summoned to put up the case, or give an opinion at the time of the accident. Midwives do a flourishing business, and send for the qualified practitioner if anything goes wrong, with no prospect of a fee. Herbalists, faith-healers, hydropaths, homœopaths, and prescribing and visiting chemists also flourish. One chemist styles himself "dental and aural surgeon," attends midwifery for £1 1*s.*, and vaccinates. We have abundance of friendly societies, the members of which are often persons in a position to pay reasonable fees, but who actually pay 2*s.* 6*d.* a head per annum inclusive. The hospital, as usual, is much abused by out-patients who can well afford to pay.

How can the remedy for all these abuses rest with the profession itself? My impression is that the supposed nineteen people who lack common sense out of every twenty will always prefer quackery, and pay for it, where the odd one goes to the orthodox but unlucky practitioner. Surely our qualifications ought to be of more value to us, and the profession as well as the public protected from irregular practice of every description by the strong arm of the law.

I am, Sirs, yours truly,

March 20th, 1888. QUERCUS.

"MEDICAL PRACTICE AT THE CAPE."

To the Editors of THE LANCET.

SIRS,—In reply to your correspondent asking for information referring to the above, I wish to inform him that there is very little chance for a medical man in Cape Town, or any of the larger towns, the competition in all of them being very keen. There is some possibility of a practice in the Gold Fields, Transvaal, and some up-country places, but for any of the above it is absolutely necessary for the practitioner not only to understand, but to be able to speak, Dutch.

I am, Sirs, yours faithfully,

St. Thomas's Hospital, March 26th, 1888. G. BLACKFORD DARTEN.

UNQUALIFIED ASSISTANTS.

Dr. Lindsay.—The "public importance" of such an arrangement as our correspondent seems to think lightly of is obvious. We commend to his attention the memorandum on the employment of unqualified assistants, published in our last issue, from the President of the Medical Council.

Mr. E. Phillips.—The London Medical Directory will afford the information desired.

Mr. Henry Rundle.—A book with such information is published by Churchills, New Burlington-street.

PRESCRIBING BY CHEMISTS.

To the Editors of THE LANCET.

SIRS,—Having read in your issue of the 24th inst. the memorandum for the guidance of medical practitioners in the employment of unqualified assistants, it struck me as being an opportune moment to ask in what light the Medical Council would regard the prescribing chemist, by whom the incomes of medical men are so seriously affected; and whether some means could not be speedily adopted to suppress their unqualified practice. I fail to see how a man entirely ignorant of the knowledge necessary to diagnose diseases can be expected to treat them skilfully, or why he should be allowed to profess to. It is time the public were enlightened as to the subjects of examination exacted by the Pharmaceutical Society. I believe that when they found their curriculum only embraced the subjects necessary to qualify them as dispensers and manufacturing chemists, they would be less likely to waste their money upon a class of men whose experience renders them quite incapable of ministering to their ailments with justice, honesty, or competency. The sufferer should be led to seek the legitimate practitioner direct, and not, as is so frequently the case, consult him as a last resource, or when he has discovered the inefficacy of the chemist's treatment.

I am, Sirs, yours truly,

Newland, High Wycombe, March, 1888. J. C. FURNESS.

Mr. F. C. Wood.—The suggestions of our correspondent appear to us to be impracticable.

Mr. M. Palmer.—Messrs. W. Pearson and Co. of Hamburgh are the manufacturers.

G. P.—The question has been decided in the affirmative.

THERAPEUTICS *v.* EXTEMPORANEOUS PHARMACY.

To the Editors of THE LANCET.

SIRS,—Dr. Harkin's experience with indestructible quinine pills is by no means unique. I remember a typhoid patient in hospital to whom, in consequence of urgent diarrhœa, pills of calomel and opium were given. Although some twenty in all were given, no perceptible effect was produced, and the man died. At the post-mortem examination nineteen of the pills were found in his intestines deprived of their covering, but otherwise intact. If the patient had been unfortunate enough to live a little longer, one shudders to think what would have become of him with thirty-eight grains of calomel and nineteen of opium in his inside. One moral of this incident, among others, is that in urgent cases, pills, unless freshly made and soft to the touch, are undesirable additions to the diet of the typhoid patient.

I am, Sirs, your obedient servant,

Gower-street, W.C. ALFRED S. GUBB, L.R.C.P., &c.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Wilks, London; Mr. F. Treves, London; Dr. G. Harley, London; Mr. Noble Smith, London; Mr. A. G. Miller, Edinburgh; Messrs. Burroughs and Wellcome, London; Dr. Stephen Mackenzie, London; Mr. Henry Lee, London; Dr. G. Fleming, London; Dr. Colcott Fox; Mr. Pugin Thornton, Canterbury; Dr. Whitelegge, Nottingham; Dr. More Madden, Dublin; Mr. W. Crookes, London; Mr. Furness; Mr. Mayo Collier, London; Mr. F. W. Jollye, Warminster; Mr. Leonard Braddon; Dr. Savage, London; Mr. Barling, Birmingham; Dr. E. T. Yeates, Peckham; Dr. Mallins, Watton; Mr. M. A. Taylor, Richmond; Dr. Lavers, London; Mr. A. Finlay, Belfast; Mr. S. Thorpe, Sible Hedingham; Mr. T. R. Bailey, Bilston; Mr. W. Young; Mr. F. A. Southam, Manchester; Dr. Clippindale, London; Surg.-Major Gupta, Calcutta; Mr. W. E. Ellis, Dublin; Mr. Sympson, Lincoln; Mr. G. Dowdeswell, London; Dr. F. S. Gramshaw, Stillington; Mr. F. W. Lowndes, Liverpool; Mr. A. A. Bowlby, London; Mr. G. B. Darten, London; Mr. J. L. Stretton, Kidderminster; Mr. C. F. Williamson, Horley; Dr. Loth, Edinburgh; Dr. Marshall, Clifton; Dr. Tomkins, Leicester; Dr. Downie, Glasgow; Mr. B. Jones, Leigh; Mr. Bastian, London; Mr. T. S. Ellis, Gloucester; Mr. Rideal, London; Mr. E. Taylor, Lincoln; Mr. Cocking, Plymouth; Mr. A. S. McClelland, Glasgow; Mr. Mason, London; Mr. Juler, London; Messrs. Bell and Son, Covent-garden; Dr. Kesteven, Waltham-cross; Messrs. Warren and Co., Bristol; Dr. Rorie, Liff; Mr. Hosegood; Messrs. Wyleys and Co., Coventry; Mr. Marsden, Bury; Mr. Baron; Messrs. Rowntree and Co., York; Mr. Jackson, London; Mr. Christia, London; Mr. Ford, Devonport; Mr. Tunmer, Harrogate; Mr. Marwood; Mr. Parkes, London; Mr. A. G. Chitty, London; Mr. G. P. Atkinson, Pontefract; Mr. A. J. A. Crespi, Wimborne; Nemo; Beta, London; The Ratcliffe Infirmary, Oxford; Galen, Coventry; Alpha, London; E. O. H., Whitstable; Fides; A. F. H., London; M.R.C.S.; M.D.; Confidential, London; Kentigern; Inquirer, London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Reeks, Southwick; Mr. Birt, Wakefield; Miss Cappelain; Drs. Thompson and Thompson, Launceston; Mr. Field, Dunstable; Messrs. Keith and Co., Edinburgh; Mr. Browning, Manchester; Messrs. Blake and Co., Leeds; Mr. Blackstone, Bradford; Mr. Farman, Ely; Mr. Fair, Lytham; Mr. Johnston, Burton; Miss Jarvis, Devon; Mr. Hughes, Pwllheli; Mr. Tully, Hastings; Mr. Wallis, Cornwall; Mr. Fitzgera'd, Folkestone; Dr. O'Keeffe, Cork; Mr. Taylor, Hull; Mr. Huggins, Malvern; Mr. Lawson, London; Mr. Tatham, Surrey; Mr. Edwards, Welshpool; Mr. Sampson, York; Mr. Hill, Devon; Mr. Heywood, Manchester; Mr. Clapham, Bodafon; Dr. Barrett, Cambs.; Mr. Hall, Kent; Dr. Hooper, Derby; Dr. Adams, Kent; Mr. Birchall, Liverpool; Messrs. Cornish Bros., Birmingham; Dr. N. Kerr, London; H. S. W., London; G. K., Southsea; Tasmania, Manchester; The Registrar-General, Dublin; Apiol, Manchester; Effendi; The Glasgow Royal Infirmary; B.A., London; Surgeon, Manchester; A. F. H., Harrow; Matron, Rochdale; H. J., London; A. Z., London; M.D., London; X., London; N., Watford; Medicus, Lancs.; Hilda, Northallerton; Vertex, York; H. G., London; Medicus.

Devon and Exeter Daily Gazette, Cork Constitution, Church Monthly, North Star, Hertfordshire Mercury, Windsor and Eton Express, Kidderminster Shuttle, Surrey Advertiser, Windsor and Eton Gazette, Southern Weekly News, Advocate of India, Tyneside Echo, &c., have been received.

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